



The Calcutta Gazette

WEDNESDAY, NOVEMBER 23, 1921.

APPENDIX.

NOTICES TO MARINERS.

The following Notices are republished for general information.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta.

A. MARR,
*Secretary to the Government of Bengal,
Marine Department.*

CALCUTTA, the 12th November 1921.

JAVA, NORTH COAST.

Tanjong Priok Harbour Entrance—Alteration in Character of Light.

No. 417 (first publication)—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1620 of 1921), are re-published :—

Position.—On outer extremity of eastern breakwater.

Lat. $6^{\circ} 05'$ S., long. $106^{\circ} 53'$ E. (approx.)

New abridged description.—Lt. Occ. W. R. 42 ft., vis. 11 m.

Alteration.—The occulting white light has been replaced by an occulting white light with red sector.

Remarks.—The red sector covers the eastern portion of the harbour.
Note.—The sectors are not to be shown on the charts.

Charts affected.—No. 933, Batavia roads.

“ 2056, Sunda strait.

“ 1653, Island of Java—western portion.

Publications.—List of Lights, Part VI, 1921, No. 885.

Eastern Archipelago Pilot, Part II, 1913, page 92.

Authority.—Hague Notice No. 1435 of 1921. (H. 4944/21.)

GULF OF OMAN—ARABIAN COAST.

Maskat Island—Light to be expunged from the Charts.

No. 418 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1634 of 1921), are re-published :—

Position.—On point situated at a distance of about 2 cables south-eastward of Ras Maskat.

Lat. $23^{\circ} 38'$ N., long. $58^{\circ} 36'$ E. (*approx.*).

Details.—The flashing white light shown on the charts in the above position, which is no longer exhibited, is to be expunged: the note “*Lt. Ho. (disused)*” is to be substituted on the large scale chart No. 2869.

Charts affected.—No. 2869, Maskat and Al Matrah.

„ 10c, Maskat to Ras Sukra.

„ 38, Maskat to Karachi.

„ 2837a, Persian gulf—eastern sheet.

Publications.—List of Lights, Part VI, 1921, No. 290.

Persian Gulf Pilot, 1915, page 43; Supplement No. 6 1921.

Authority.—Hydrographic Department. (H. 4408/21).

INDIAN OCEAN—CEYLON.

Colombo W/T Station—Areas where Communication is ineffective or unreliable.

No. 419 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1635 of 1921), are re-published—

Position.—Colombo W/T station, lat. $6^{\circ} 55'$ N., long. $79^{\circ} 53'$ E. (*approx.*).

Call signal.—VPB.

Details.—The normal range of Colombo W/T station is 400 miles by day and 800 miles by night; but when conditions are favourable these distances are considerably exceeded.

There are, however, areas within the normal range of the station in which, for reasons not yet precisely determined, it is not feasible to ensure proper communication.

The following are the areas in which communication is not possible at any time—

(1) A line joining the following approximate positions—

○ ‘ ○ ‘

(a) Lat. $5^{\circ} 20'$ N., long. $79^{\circ} 40'$ E.

(b) „ $10^{\circ} 40'$ N., „ $81^{\circ} 00'$ E.

(c) „ $12^{\circ} 00'$ N., „ $81^{\circ} 30'$ E.

(d) „ $11^{\circ} 00'$ N., „ $83^{\circ} 35'$ E.

(e) „ $6^{\circ} 20'$ N., „ $82^{\circ} 10'$ E.

and thence to position (a).

(2) A line joining the following approximate positions—

○ ‘ ○ ‘

(a) Lat. $14^{\circ} 10'$ N., long. $73^{\circ} 40'$ E.

(b) „ $8^{\circ} 00'$ N., „ $76^{\circ} 40'$ E.

(c) „ $7^{\circ} 00'$ N., „ $76^{\circ} 30'$ E.

(d) „ $8^{\circ} 20'$ N., „ $70^{\circ} 00'$ E.

(e) „ $9^{\circ} 40'$ N., „ $70^{\circ} 20'$ E.

and thence to position (a).

The following are the areas in which indifferent communication is only possible at any time—

(3) A line joining the following approximate positions—

- (a) Lat. $1^{\circ} 20' N.$, long. $83^{\circ} 00' E.$
- (b) " $8^{\circ} 40' N.$, " $83^{\circ} 45' E.$
- (c) " $11^{\circ} 40' N.$, " $90^{\circ} 05' E.$
- (d) " $0^{\circ} 35' N.$, " $90^{\circ} 10' E.$

and thence to position (a).

(4) A line joining the following approximate positions—

- (a) Lat. $9^{\circ} 40' N.$, long. $70^{\circ} 20' E.$
- (b) " $10^{\circ} 35' N.$, " $64^{\circ} 15' E.$
- (c) " $9^{\circ} 20' N.$, " $64^{\circ} 00' E.$
- (d) " $8^{\circ} 20' N.$, " $70^{\circ} 00' E.$

and thence to position (a).

Publications.—West Coast of India Pilot, 1921, page 99.
Bay of Bengal Pilot, 1910, page 102; Supplement No. 5, 1920.

Authority.—Colombo Port Commission. (H. 4938/21.)

WESTERN AUSTRALIA, NORTH-WEST COAST—KING SOUND.

FitzRoy River Approach—Obstruction reported.

No. 420 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1637 of 1921), are re-published:—

Position.—At a distance of about $2\frac{1}{2}$ miles north-westward of the northern end of the Outer Rip shoal.

Lat. $17^{\circ} 03' 30'' S.$, long. $123^{\circ} 28' 30'' E.$

Description.—A submerged obstruction over which there is a depth of about $2\frac{1}{2}$ fathoms (4 m 6).

Note.—The above depth is to be encircled by a danger line on the charts and marked with the note "*Obstruction repd. (1921)*".

Charts affected.—No. 1052, Hall point to Cape Bertholet, including King sound, etc.

" 1048, Buccaneer archipelago to Bedout island.

" 475, North-west coast of Australia.

Publication.—Australia Pilot, Vol. V, 1921, page 235.

Authority.—Fremantle Notice dated 8th June 1921. (H. 5134-21.)

PHILIPPINE ISLANDS.

Basilan Strait—Shoal to be expunged from Charts.

No. 421 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1652 of 1921), are re-published:—

Position.—At a distance of about 3 miles southward of the southern end of Santa Cruz (Great) island.

Lat. $6^{\circ} 48' N.$, long. $122^{\circ} 04' E.$ (*approx.*).

Details.—The shoal over which a depth of less than 4 fathoms (7 m 3) was reported in the year 1899 is to be expunged from the charts.

Charts affected.—No. 961, Basilan strait.

„ 928, Sulu archipelago.

„ 2576, Sulu Archipelago and north-east coast of Borneo.

„ 943, Molucca passage to Manila.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 245.

Authority.—U. S. A. Government Chart. (H. 4427-21.)

BAY OF BENGAL—NICOBAR ISLANDS, ST. GEORGE'S CHANNEL.

Kondul and Menchal Islands—Shoal Water reported westward of.

No. 422 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1666 of 1921), are republished:—

Position.—(a) Kondul island, lat. $7^{\circ} 13'$ N., long. $93^{\circ} 42'$ E. (*approx.*).
(b) Menchal island, lat. $7^{\circ} 24'$ N., long. $93^{\circ} 45'$ E.

Caution.—(a) A depth of 6 fathoms ($11^m 0$) has been obtained about $1\frac{1}{2}$ miles westward of Kondul island, and shoal water appeared to extend over a considerable area in this locality.

A cautionary note “*6 fms. repd. probably less water (1921)*” is to be inserted to the westward of Kondul island, on the plan of St. George's channel on chart No. 840.

(b) Depths of $6\frac{1}{2}$ fathoms ($11^m 9$) have been obtained between Menchal and Little Nicobar islands, where 21 and 30 fathoms are shown on the chart; shoal water is reported to extend across the channel between these two islands.

A cautionary note “*Shoal water repd. (1921)*” is to be inserted on the chart.

Charts affected.—No. 840, Nicobar islands, with plan.

„ 830, Bassein river to Pulo Penang.

Publication.—Bay of Bengal Pilot, 1910, pages 377, 378, 379.

Authority.—Director, Royal Indian Marine. (H. 5452-21.)

RED SEA—SUEZ BAY.

Suez Canal Entrance and approach—Corrections to Chart No. 734 with regard to Lighting and Buoyage.

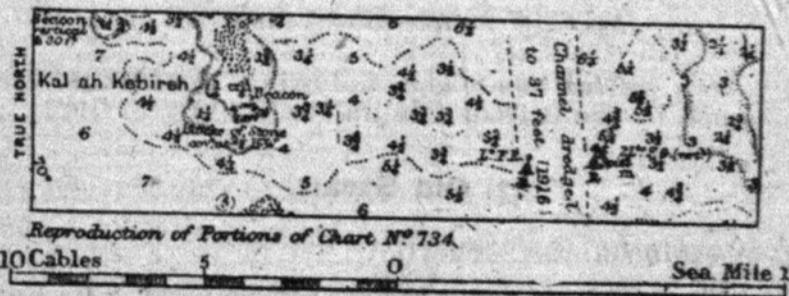
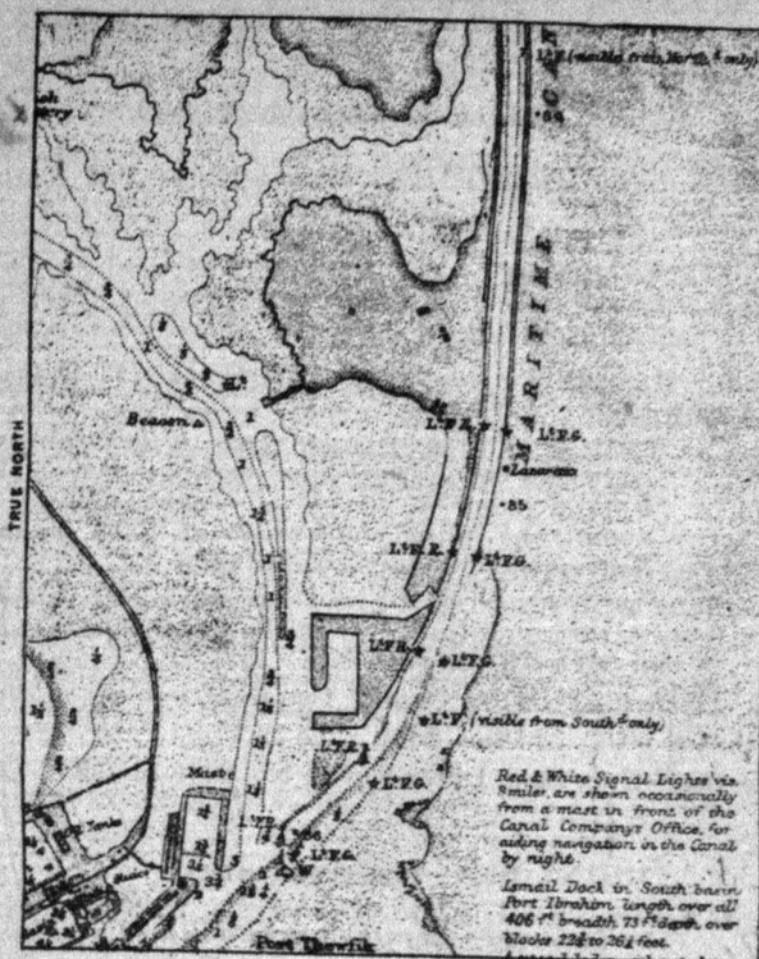
No. 423 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1675 of 1921), are republished:—

Position.—Kal ah Kebireh beacon, lat. $29^{\circ} 55'$ N., long. $32^{\circ} 32'$ E. (*approx.*).

Details.—The accompanying reproduction of portions of chart No. 734 shows the necessary corrections to that chart with regard to lights and light-buoys in the southern entrance to Suez Canal and the positions of light-buoys in the dredged channel eastward of Kal ah Kebireh.

Chart affected.—No. 734, Suez bay.

Publication.—Red Sea, &c., Pilot, 1921, pages 75, 76.
Authority.—Suez Canal Company. (H. 5301-21.)



JAPAN, INLAND SEA—KURUSIMA NO SETO.

Kono Se Light—Alteration in Character.

No. 424 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1682 of 1921), are republished:—

Position.—Lat. $34^{\circ} 08'$ N., long $132^{\circ} 59'$ E. (*approx.*)

New abridged description.—Lt. Gp. Fl. (2) W. R. ev. 6 sec., 27 ft., vis. 10 m (U).

Alteration.—The character of the light has been altered from fixed white and red to *group flashing*, with *white* and *red* sectors, showing *two flashes every six seconds*, thus:

<u>Two flashes</u>	<u>eclipse</u>
2 sec.	4 sec.

Charts affected.—No. 131, Kurusima no seto.

" 83, Gogo shima to Miyo shima.

" 3325, Channels between Neko seto and Mekari seto.

" 2875, Naikai (Seto uchi) or Inland sea.

Publications.—List of Lights, Part VI, 1921, No. 1959.
Japan Pilot, 1914, pages 332, 333.

Authority.—Tokyo, Department of Communications Notices Nos. 1181 and 1280 of 1921. (H. 5083-21.)

JAPAN—KAZAN OR VOLCANO ISLANDS.

Iwo Jima (Sulphur Island), East Coast—Rocks and Breakers reported off.

No. 425 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1683 of 1921), are republished:—

Position.—Higashi iwa, lat. $24^{\circ} 47' N.$, long. $141^{\circ} 23' E.$ (*approx.*).

Details.—Breakers and rocks above water have been observed extending from Higashi iwa to Iwo jima. Breakers have also been observed extending for a short distance from a point on the south-eastern side of the island about one mile southward of Furu yama summit. Mariners are warned accordingly.

Note.—Notes with regard to the breakers and rocks reported are to be inserted on the chart in the localities mentioned and marked with the year date “1921.”

Chart affected.—No. 1100, Plan of Iwo jima.

Publication.—Japan Pilot, 1914, page 38.

Authority.—U. S. Hyd. Office Notice No. 2964 of 1920. (H. 6551-20.)

CHINA SEA—SINGAPORE STRAIT.

- (1) *Old Strait—Lights to be established.*
- (2) *Calder Harbour—Existence of rock.*
- (3) *Red Cliff Bank—Shoal eastward of.*

No. 426 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1689 of 1921), are republished:—

(1) Old Strait.

Date of establishment.—Shortly.

(a) *Position.*—Off the south-eastern extremity of Pulo Ketam.
Lat. $1^{\circ} 23' 52'' N.$, long. $103^{\circ} 57' 25'' E.$

(b) *Position.*—Off the western extremity of Pulo Ubin.
Lat. $1^{\circ} 25' 18'' N.$, long. $103^{\circ} 55' 30'' E.$

(c) *Position.*—At a distance of about half a mile eastward of the south-eastern extremity of Pulo Khatib Bongsu.
Lat. $1^{\circ} 26' 20'' N.$, long. $103^{\circ} 52' 22'' E.$

(d) *Position.*—On the northern side of the strait, between Sungi Lunchu and Sungi Sinibong.
Lat. $1^{\circ} 28' 33'' N.$, long. $103^{\circ} 49' 38'' E.$

Abridged descriptions.—Lt. Fl. ev. 3 sec. 6 ft. (U), in each case.

Character.—In each case *flashing white every three seconds*, thus:

<u>Flash</u>	<u>eclipse.</u>
1 sec.	2 sec.

Elevation.—6 feet (1^m8).

Structures.—Iron framework.

Remarks.—The lights will be unwatched.

Note.—No further Notice will be given.

(2) Calder Harbour.

Position.—At a distance of 0° 98' of a mile, 282°, from the beacon on Johor hill.

Lat. 1° 23' N., long. 104° 05' E. (*approx.*).

Depth.—2½ fathoms (4^m6).

(3) Red Cliff Bank.

Position.—At a distance of 3° 80 miles, 093°, from Tanah Merah Besar summit.

Lat. 1° 21' N., long. 104° 02' E. (*approx.*).

Depth.—2½ fathoms (5^m0).

Remarks—From the above position, which is the easternmost point of a triangular-shaped shoal, depths of 3 fathoms (5^m5) or less extend for distances of about 4 cables in north-westerly and south-westerly directions.

Charts affected.—No. 2403, Singapore strait.

“ 2757, Banka strait to Singapore. (2) and (3).

“ 3543, Approaches to Singapore. (2) and (3).

“ 1355, Malacca strait. (2) and (3).

Publications.—List of Lights, Part VI, 1921, No. 791 (Remarks).

China Sea Pilot, Vol. I, 1916, pages 286, 289, 300 to 302.

Authority.—Hydrographic Department. (H. 5254, 5457 & 5458-21.)

INDIA, WEST COAST—BOMBAY HARBOUR.

Buoy Marking western limit of Spoil Ground Replaced by an “Aga” Gas Buoy.

No. 427 (*first publication.*)—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 118M. of 1921), are republished:—

Date of exhibition.—25th October 1921.

Position.—At a distance of 6½ cables 211° from Karanja Beacon at the Western limit of Spoil Ground, former buoy has now been removed.

Abridged description.—Lt. Fl. Red. ev. 7 sec. vis. 6m.

Description.—A conical buoy painted red exhibiting a red light thus:—

<u>Light</u>	<u>Eclipse.</u>
1 Sec.	6 Sec.

Visibility.—6 Miles in clear weather.

Remarks.—The buoy is an “Aga” Standard design.

Variation.—Nil.

Charts affected.—No. 2621, Bombay Harbour.

“ 655, Port of Bombay.

“ 737, Arnala Island to Kundari Island.

Publications.—West Coast of India Pilot, 1919, page 222.

Indian List of Lights, 40th issue, 1921, page 22.

Authority.—The Port Officer, Bombay, dated 25th October 1921.

PERSIAN GULF.

Shatt-al-Arab—Light Vessel temporarily replaced by a light buoy.

No. 428 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 119M. of 1921), are republished :—

Former Notice No. 108M. of 1921. (This Office No. 394 of 1921.)

Position.—Lat. $29^{\circ} 44\frac{1}{2}'$ N., long. $48^{\circ} 48\frac{1}{2}'$ E.

Details.—A Light Buoy, painted red, exhibiting a fixed white light has been placed in the position of the Shatt-al-Arab Light Vessel, which was notified to be temporarily withdrawn for repairs on the 25th October 1921.

Charts temporarily affected.—No. 1253, Shatt-al-Arab, Outer Bar to Fao.
,, 1235, Mouth of the Euphrates.

Authority.—The Commanding Officer, R. I. M. S. "Nearchus" Telegram dated 25th October 1921.

INDIA, WEST COAST—KARACHI HARBOUR.

Manora Point—Breakwater light re-exhibited.

No. 429 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 120M. of 1921), are republished :—

Former Notice—No. 112-M. of 1921. (This Office No. 402 of 1921.)

Position.—At the end of the Manora breakwater.

Lat. $24^{\circ} 47'$ N., long. $66^{\circ} 59'$ E.

Details.—The white occulting light shown from the end of the Manora breakwater which was reported temporarily extinguished, has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.

,, 41, Cape Monze to Kediwari Mouth.
,, 39, Sind and Kutch Coasts.
,, 38, Maskat to Karachi.
,, 826, Karachi to Vengurla.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, WEST COAST.

Karachi Harbour—Outer Gas Buoy Light re-exhibited.

No. 430 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 121-M. of 1921), are republished :—

Former Notice—No. 81-M. of 1921. (This Office No. 181 of 1921.)

Position.—At a distance of about $3\frac{1}{2}$ Cables eastward of the light on the end of the Manora Breakwater.

Lat. $24^{\circ} 47'$ N., long. $67^{\circ} 59\frac{1}{4}'$ E.

Details.—The occulting red light, exhibited from the Outer red Conical buoy, which was reported not burning has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.

" 41, Cape Monze to Kediwari Mouth.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, SOUTH COAST—GULF OF MANAR.

No. 431 (*first publication*).—

Caution. Tuticorin Roadstead—Danger to navigation.

Former Notice.—No. 370 of 1921.

Subject.—The Marine Boiler reported to have been sunk in the following position has not been found and therefore may constitute a danger to navigation.

Position.—Hare island light N. 86° W. (True).

Church island church N. 25° W. (True).

Caution.—Mariners are hereby warned.

Charts affected.—No. 68a, Palk strait and Gulf of Manar, Sheet 1.

" 67, Tuticorin Roadstead and harbour.

Authority.—Madras Notice No. 43, dated 21st October 1921.

BAY OF BENGAL.—BURMA COAST.

No. 432 (*first publication*).—

Caution. Report of derelict Brigantine "Hydrobandooli."

Subject.—Brigantine "Hydrobandooli" reported abandoned off Diamond Island on 8th November 1921 and drifting in a N. W. direction.

The Master of the SS. "Shahjehan" reports having sighted on the 10th November 1921 the derelict "Hydrobandooli" mastless and rudderless in the following position :—

Position.—Lat. $16^{\circ}17'$ N., long. $93^{\circ}40'$ E.

Subject.—On the 11th November 1921 derelict was sighted in the following position :—

Position.—Lat. $16^{\circ} 27'$ N., long. $93^{\circ} 17'$ E.

Caution.—Mariners are hereby warned that this derelict constitutes a danger to Shipping.

Charts affected.—No. 829, Cocanada to Bassein river.

" 70, Bay of Bengal.

Authority.—Principal Port Officer, Burma, Rangoon, telegrams dated 8th, 10th and 12th November 1921.

The 7th November 1921.

CHINA SEA.

Gaspar Strait, Northern Approach—Amended Position and Depth of Rock; Existence of Wreck.

No. 407 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1577 of 1921), are republished:—

(1) Amended position and depth of rock:

Former Notice.—No. 1505 of 1921. (*This Office No. 391 of 1921.*)

Position.—At a distance of about 46 miles northward of Langkuas island light and close north-eastward of the reported position given in the former Notice.
Lat. $1^{\circ} 46' 12''$ S., long. $107^{\circ} 31' 30''$ E.

Details.—Further information has been received that there is a depth of $2\frac{1}{4}$ fathoms ($4^{\text{m}} 1$) over this rock.

Note.—The position of this rock and the depth are to be amended on the charts, and the 10-fathom shoal formerly shown in lat. $1^{\circ} 47' 20''$ S., long. $107^{\circ} 31' 00''$ E., is to be re-inserted.

(2) Existence of wreck:

Position.—At a distance of about 3 miles south-eastward of the $2\frac{1}{4}$ -fathom rock referred to above.

Lat. $1^{\circ} 48' 30''$ S., long. $107^{\circ} 53' 40''$ E. (*approx.*).

Description.—Sunken wreck.

Charts affected.—No. 2149, Banka and Gaspar straits.

,, 941a, Eastern archipelago—sheet 1.

,, 1263, China sea (1).

,, 748b, Indian ocean—northern portion. (1).

Publication.—China Sea Pilot, Vol. II, 1915, page 185.

Authority.—Hague Notice No. 1562 of 1921. (*H. 5373-21.*)

CELEBES, WEST COAST—MAKASSAR STRAIT.

Cape Mandar (Tanjong Rangasa) Light—Amended Details.

No. 408 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1581 of 1921), are republished:—

Former Notice.—No. 1134 of 1921. (*This Office No. 309 of 1921.*)

Position.—Lat. $3^{\circ} 34'$ S., long. $118^{\circ} 56'$ E. (*approx.*).

New abridged description.—Lt. Gp. Fl. ev. 10 sec., 308 ft. vis. 24 m.

Details.—This group *flashing white* light has an elevation of 308 feet ($93^{\text{m}} 9$) and is visible for a distance of 24 miles; the arc of visibility is from 258° through west to 147° .

Charts affected.—No. 2662, Plan of Majene road and Balangnipa road.

,, 2637, South part of the Strait of Makassar.

,, 941b, Eastern archipelago—sheet II.

Publications.—List of Lights, Part VI, 1921, No. 1023.

Eastern Archipelago Pilot, Part II, 1913, page 403.

Authority.—Hague Notice No. 1438 of 1921. (*H. 4947-21.*)

JAPAN—HOKUSHŪ ISLAND.

Suisho and Go Yo Mai Channels—Existence of Shoals.

No. 409 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1583 of 1921), are republished:—

(1) Suisho channel:

(a) Position.—At a distance of 3 miles, 021° , from the 133-foot Δ at the western end of Yuru jima.

Yuru jima 133-ft. Δ , lat. $43^{\circ} 24'$ N., long. $146^{\circ} 02'$ E.
(approx.).

Depth.— $2\frac{1}{2}$ fathoms (4 m 6).

(b) Position.—At a distance of 1.67 miles, 325° , from Yuru jima 133-foot Δ .

Depth.— $3\frac{1}{2}$ fathoms (6 m 4).

(2) Go yo mai channel:

Position.—At a distance of 7.44 cables, 347° , from Noshap saki light-house.

Lat. $43^{\circ} 24'$ N., long. $145^{\circ} 49'$ E. (approx.).

Depth.— $2\frac{1}{2}$ fathoms (4 m 1).

Charts affected.—No. 1268, Go yo mai channel.

„ 507, Go yo mai channel to Nemoro kaikyo. (2).

„ 452, Hokushū island. (1) (a).

Publication.—Japan Pilot, 1914, pages 731, 732, 734.

Authority.—Tokyo Notice No. 248 of 1921. (H. 5420-21.)

SOUTH ATLANTIC AND INDIAN OCEANS.

W-T Stations discontinued.

No. 410 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1597 of 1921), are republished:—

Former Notice.—No. 1473 of 1921. (This Office No. 387 of 1921.)

(1) The undermentioned Admiralty W-T station has been permanently discontinued:—

Station.	Position.
Mauritius	Lat. $20^{\circ} 10'$ S., long. $57^{\circ} 35'$ E. (approx.).

Remarks.—The above station is to be expunged from the charts.

(2) The undermentioned Admiralty W-T station has been temporarily discontinued:—

Station.	Position.
Falkland islands (Stanley)	Lat. $51^{\circ} 41'$ S., long. $57^{\circ} 49'$ W. (approx.).

Falkland islands (Stanley) will be permanently discontinued immediately the new colonial station on Falkland islands commences operating.

Note.—This station is to be re-inserted on the charts with the note "Temporarily discontinued, 1921."

Charts affected.—No. 2202b, South Atlantic ocean—western portion.
(2).

„ 748a, Indian ocean—southern portion. (1).

„ 3778, Telegraph chart of The World—sheet 1.
(2).

„ 3779, Telegraph chart of The World—sheet 2.
(1).

Publication.—South America Pilot, Part I, 1911, page 538; Supplement No. 5, 1920.

Authority.—The Lords Commissioners of the Admiralty. (H. 4588-21.)

PERSIAN-GULF—KUWAIT HARBOUR.

Ras-al-Arz (Ardh)—Beacon collapsed.

No. 411 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 113M of 1921), are republished:—

Position.—Lat. $29^{\circ} 21'$ N., long. $48^{\circ} 06'$ E.

Details.—The black pyramidal beacon 32 feet high surmounted by a black ball, on the extreme of Ras-al-Arz has collapsed.

Note.—A mast with disc has been temporarily erected on the site.

Remarks.—The temporary fixed white light visible 7 miles, exhibited from the beacon, has now been placed on the roof of the Care-taker's house 35 yards southward of the ruined beacon.

Charts affected.—No. 22, Kuwait Harbour.

„ 2837b, Persian Gulf, Western Sheet.

Publications.—Persian Gulf Pilot, 1915, page 148, Supplement No. 6, 1921.

Indian List of Lights, 40th issue, 1921, No. 24.

List of Lights, Part VI, 1921, No. 303.

Authority.—Resident, Bushire, Telegram, dated 13th October 1921.

INDIA—WEST COAST.

Buoys between Alibag and Bhatkal relaid.

No. 412 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 114M. of 1921), are republished:—

Former Notice.—No. 77-M. of 1921. (*This Office No. 160 of 1921*.)

Details.—The following buoys, which were withdrawn during the South-West monsoon, were relaid in their respective positions on the date noted against them:—

Alibag Reef Buoy ...	...	... 8th October 1921.
Ambalgarh Reef Buoy	...	... 26th September 1921.
Malvan-Rajkot Rocks Buoy	...	... 14th " "
Malvan Harbour Buoy	...	... 11th " "
Malvan Johnston Castle Rock Buoy	...	... 12th " "
Malvan Outer Rock Buoy	...	... 23rd " "
Chaldea Rock Buoy	...	... 24th " "
Bubra Rock Buoy	...	... 4th October 1921.
Vengurla Harbour South Rock Buoy	...	... 25th September 1921.
Madeshwar Dart Rock Buoy	...	... 22nd " "
Bhatkal Rock Buoy	...	... 20th " "

Authority.—The Commissioner of Customs, Salt and Excise, Camp via Bombay, dated 17th October 1921.

RED SEA.

Telegraph Cable Buoys temporarily established. Caution.

No. 413 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 115M. of 1921), are republished :—

Positions.—(I) Lat. $29^{\circ} 25' 00''$ N.
Long. $32^{\circ} 33' 30''$ E.
(II) Lat. $29^{\circ} 22' 00''$ N.
Long. $32^{\circ} 39' 30''$ E.
(III) Lat. $28^{\circ} 32' 30''$ N.
Long. $33^{\circ} 04' 00''$ E.
(IV) Lat. $28^{\circ} 29' 00''$ N.
Long. $33^{\circ} 13' 30''$ E.
(V) Lat. $28^{\circ} 16' 00''$ N.
Long. $33^{\circ} 31' 00''$ E.
(VI) Lat. $28^{\circ} 04' 00''$ N.
Long. $33^{\circ} 37' 00''$ E.
(VII) Lat. $27^{\circ} 56' 30''$ N.
Long. $33^{\circ} 45' 00''$ E.

Description.—All these buoys are surmounted with Staff and Flag over Cage and numbers two to six inclusive are light buoys, exhibiting a flashing white light.

Caution.—Vessels navigating in the vicinity of the above buoys are requested to give them a wide berth.

Note.—Further notice will be given when the buoys have been withdrawn.

Charts temporarily affected.—No. 2838, Strait of Jubal (VII).

.. 757, Gulf of Suez.
.. Sa, Red Sea—Sheet I.
.. 2523, Red Sea.

Authority.—Eastern Telegraph Company, Bombay, dated 17th October 1921.

INDIA, WEST COAST—KATHIAWAR COAST.

Navibandar—Non-existence of wreckage.

No. 414 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 116M. of 1921), are republished :—

Former notice.—No. 58M. of 1921 (*This Office No. 138 of 1921*) cancelled.

Position.—At a distance of about 7 miles, 178° , from Navibandar Light.

Lat. $21^{\circ} 20' N.$, long. $69^{\circ} 47\frac{1}{2}' E.$

Details.—Further information has been received that the wreckage with mast projecting 14 feet out of water has disappeared.

Charts, which were temporarily affected.—No. 1420, Dwarka Point to Diu Head.
 „ 2736, Gulf of Kutch to Viziatrugh.
 „ 826, Karachi to Vengurla.
 „ 1012, Arabian Sea.

Authority.—The Port and Chief Customs Officer, Porbander State, dated 11th October 1921.

CEYLON, SOUTH COAST.

Point de Galle—Light re-exhibited.

No. 415 (second publication).—

Former notice—No. 327 of 1921.

Subject.—The Point de Galle light will be re-exhibited from the 18th October 1921.

Position.—Lat. $6^{\circ} 1'$ N., long. $80^{\circ} 13'$ E.

Charts affected.—No. 819, Approaches to Galle Harbour.

„ 3700, Colombo to Galle.

„ 3265, Galle to Little Basses.

„ 813, Ceylon, south part.

„ 828, Capé Comorin to Cocanada.

„ 70, Bay of Bengal.

Publications.—List of Lights, Part VI, 1921, No. 511.

Bay of Bengal Pilot, 1910, page 118.

Authority.—Master Attendant, Colombo, Notice dated 17th October 1921.

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Leading marks over Outer Bar inaccurate.

No. 416-I (second publication).—

Subject.—It is hereby notified that as the navigable channel at the mouth of the Karnafuli river is rapidly changing, the leading marks over the Outer Bar are not accurate at present.

Authority.—Port Officer, Chittagong, Notice dated the 2nd November 1921.

The 29th October 1921.

BAY OF BENGAL—BURMA.

Mouths of the Irrawaddy—Shoal Depths reported off.

No. 399 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1534 of 1921), are republished:—

Details.—Shoal depths, considerably less than shown on the charts, are reported to exist as undermentioned:—

(a) Depths of $4\frac{1}{2}$ fathoms ($8^{\text{m}} 7$) between the following positions:—

(i) Lat. $15^{\circ} 32' 00''$ N., long. $95^{\circ} 44' 00''$ E.

(ii) Lat. $15^{\circ} 32' 00''$ N., long. $95^{\circ} 38' 00''$ E.

(b) Depths of $5\frac{1}{2}$ fathoms ($10^{\text{m}} 1$) between the following positions:—

(i) Lat. $15^{\circ} 24' 00''$ N., long. $95^{\circ} 27' 00''$ E.

(ii) Lat. $15^{\circ} 24' 00''$ N., long. $95^{\circ} 15' 00''$ E.

(c) Depths of 8 fathoms (14^m6) in the vicinity of the following position :—

Lat. 15° 30' 00" N., long. 94° 50' 14" E.

Note.—Notes to the above effect with the year date "1920" are to be inserted on the charts in the vicinities referred to.

Attention is also drawn to the existing cautionary notes with regard to the extension of Baragua flats to the southward.

Charts affected.—No. 823, Koronge island to White point.

" 830, Bassein river to Pulo Penang.

" 70, Bay of Bengal.

Publication.—Bay of Bengal Pilot, 1910, pages 451, 452, 453.

Authority.—French Hydrographer and Paris Notice No. 2332 of 1920. (H. 9119-20.)

MALACCA STRAIT—PERAK RIVER APPROACH, SEMBILAN ISLANDS.

White Rock—Light established.

No. 400 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1543 of 1921), are republished :—

Position.—On White rock, situated, at a distance of about 1½ miles north-westward of Pulo Buluh summit.

Lat. 4° 00' N., long. 100° 30' E. (approx.).

Abridged description.—Lt. Gp. Fl. (2) ev. 34 sec., 50 ft., vis. 10 m.

Characteristics:

Character.—Group flashing white showing two flashes every thirty-four seconds, thus :

<i>Flash,</i>	<i>eclipse,</i>	<i>flash,</i>	<i>eclipse.</i>
4 sec.	4 sec.	4 sec.	22 sec.

Elevation.—50 feet (15^m2).

Visibility.—10 miles.

Structure.—Iron structure on concrete base.

Charts affected.—No. 1009, Approaches to Perak river.

" 794, Pulo Berhala to Cape Rachado.

" 793, Butang group to Pulo Berhala.

" 1355, Malacca strait.

" 2760, Aceh head to Chingkuh bay.

Publications.—List of Lights, Part VI, 1921, No. 750a.

China Sea Pilot, Vol. I, 1916, page 204.

Authority.—Harbour Master, Port Swettenham. (H. 4843-21.)

PERSIAN GULF.

Shatt-al-Arab, Outer Bar—Alteration in position of Buoys.

No. 401 (third publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 111M. of 1921), are republished :—

Date of Alteration.—On or about 4th October 1921.

(1) *Amended position of black can buoys.*

(a) No. 3 black can buoy. At a distance of $\frac{8}{10}$ Cable, 90°, from the present position.

(b) No. 4 black can buoy. At a distance of $\frac{1}{2}$ Cable, 90°, from the present position.

(c) No. 5 black can buoy. At a distance of $\frac{1}{2}$ Cable, 90° , from the present position.

(d) No. 6 black can buoy. At a distance of $1\frac{1}{10}$ Cables, 90° , from the present position.

Note.—The note "reported missing 1920" against the black buoy No. 4, should be expunged.

Remarks.—The above buoys in their new position, will be in transit 335° , with No. 2 black can buoy.

(2) *Inner green gas buoy amended position.*

Position.—At a distance of 5 Cables, 90° , from the present position.

Lat. $29^\circ 53\frac{1}{2}'$ N., long. $48^\circ 39\frac{1}{2}'$ E.

Details.—The Inner gas buoy exhibiting a flashing green light has been moved to the above position and it will mark the Eastern or starboard hand side of the channel.

Charts affected.—No. 1253, Shatt-al-Arab, Outer Bar to Fao.
" 1235, Mouth of the Euphrates.

Publications.—Persian Gulf Pilot, 1915, page 281, Supplement No. 6, 1921.

Indian List of Lights, 40th issue, 1921, No. 30.

Authority.—The Port Officer, Basrah, dated 21st September 1921.

INDIA—WEST COAST—KARACHI HARBOUR.

Manora Point, Breakwater—Light temporarily extinguished.

No. 402 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 112M. of 1921), are republished:—

Position.—At the end of the Manora breakwater.

Lat. $24^\circ 47'$ N., long. $66^\circ 59'$ E.

Details.—The white occulting light shown from the end of the Manora breakwater at an elevation of 53 feet, will be temporarily extinguished from 17th October 1921, until further notice.

Charts temporarily affected.—No. 40, Karachi Harbour.

" 41, Cape Monze to Kediwari mouth.
" 39, Sind and Kutch Coasts.
" 38, Maskat to Karachi.
" 826, Karachi to Vengurla.

Authority.—The Port Officer, Karachi, Telegram dated 11th October 1921.

INDIA—EAST COAST—PAMBAN, NEGAPATAM, CUDDALORE, MASULIPATAM AND BIMLIPATAM.

Preliminary Notice of alteration of characters of certain Lights.

No. 403 (third publication).—

Subject.—On dates to be hereafter fixed early in 1922, the present occulting characters of Pamban, Negapatam, Cuddalore, Masulipatam and Bimlipatam Lighthouses, will be changed to Flashing characters. Full particulars of the new characters, and date of change, will be given here after.

Authority.—Presidency Port Officer, Madras, Notice No. 38 of 1921.

INDIA, WEST—TRAVANCORE COAST, KOLACHEL ANCHORAGE.

Patna rock, red buoy—Replaced in position.

No. 404 (third publication).—

With reference to Notice to Mariners No. 133 of 1921 issued by this office, the Principal Port Officer, Travancore, Alleppey, has given further Notice, dated the 21st September 1921, that the Patna rock, red buoy, has been replaced in position.

INDIA, WEST—TRAVANCORE COAST.

Entrance to Quilon Inner Anchorage—Buoys replaced in position.

No. 405 (third publication).—

With reference to this Office Notice to Mariners No. 134 of 1921, the Principal Port Officer, Travancore, Alleppey, has given further Notice, dated 3rd October 1921, that the buoys marking the entrance to the inner anchorage, Quilon, have been replaced in position as follows:—

North (red) buoy bears from the Quilon Flagstaff N. 59° E. Mag. distance about $8\frac{1}{2}$ cables.

South (black) buoy bears from the Quilon Flagstaff N. $33\frac{1}{4}^{\circ}$ E. Mag. distance about $9\frac{1}{2}$ cables.

The attention of Mariners is drawn to the note appearing on the chart of the Quilon Roads, inset on sheet XII West Coast of India, with reference to these buoys.

Note.—The Flagstaff and the tall red chimney of Messrs. Harrison and Crosfield when in one bears N. $45\frac{1}{2}^{\circ}$ E. Mag. and leads over the South edge of the $4\frac{1}{2}$ -fathom patch in the entrance channel. The chimney should be kept open slightly to the South when passing through the hannel.

BAY OF BENGAL, BURMA—GULF OF MARTABAN, RANGOON RIVER APPROACH.

China Bakir light—Non-exhibition of.

No. 406 (third publication).—

Subject.—From the 1st November 1921 the China Bakir light showing a white fixed and flashing light will cease to be exhibited.

Position.—Lat. $16^{\circ} 17'$ N., long. $96^{\circ} 11'$ E.

Charts affected.—No. 833, Rangoon river and approaches.

" 830, Bassein river to Pulo Penaug.

" 823, Koronge island to White point.

Publications.—List of Lights, Part VI, 1921, No. 643.

Bay of Bengal Pilot, 1910, page 452.

Authority.—Principal Port Officer, Burma, Rangoon, telegrams dated 28th and 29th October 1921.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,

Port Officer of Calcutta.



The Calcutta Gazette

WEDNESDAY, NOVEMBER 30, 1921.

APPENDIX.

NOTICES TO MARINERS.

The following Notices are republished for general information.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,

Port Officer of Calcutta.

A. MARR,

*Secretary to the Government of Bengal,
Marine Department.*

CALCUTTA, the 18th November 1921.

EASTERN ARCHIPELAGO—CELEBES, EAST COAST.

Lasolo Bay—Existence of Reef.

No. 433 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1696 of 1921), are republished :—

Position.—At a distance of about 3½ miles southward of North reef.
Lat. 3° 34' 30" S., long. 122° 29' 00" E.

Depth.—One fathom (1 m).

Remarks.—There is practically no discolouration in the water to mark this reef.

Charts affected.—No. 3148, Salabangka strait and approaches.

“ 3616, Tomori gulf to Salayar strait.

“ 942a, Eastern archipelago—sheet 3.

Publication.—Eastern Archipelago Pilot, Part II, 1913, page 484.

Authority.—Hague Notices Nos. 1664 and 1790 of 1921. (H. 5310-21)

CHINA, EAST COAST—FORMOSA STRAIT, HU I TAU BAY ENTRANCE.

Dodd Island—New Light established.

No. 434 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1697 of 1921), are republished:—

Former Notice.—No. 998 of 1921 (*This Office No. 281 of 1921*) ; hereby cancelled.

Position.—Lat. $24^{\circ} 26'$ N., long. $118^{\circ} 30'$ E. (*approx.*).

New abridged description.—Lt. Gp. Fl. (2) ev. 15 sec., 147 ft., vis. 18m.

Details.—The occulting light with white and red sectors has been replaced by a group *flashing* light, with *white* and *red* sectors, showing *two* flashes in quick succession *every fifteen seconds*.

The power of the light has been increased ; the other characteristics remain unaltered.

Remarks.—The temporary flashing white light has been discontinued.

Charts affected.—No. 1959, Hu i tau and Chimo bays.

„ 1760, The Brothers to Ockseu islands.

„ 1968, Formosa island and strait.

„ 2412, Amoy to Nagasaki.

„ 1262, Hongkong to Gulf of Liau tung.

„ 1263, China sea.

Publications.—List of Lights, Part VI, 1921, No. 1544.

China Sea Pilot, Vol. V, 1912, pages 135, 136.

Authority.—Shanghai Notice No. 734 of 13th July 1921. (H. 5294-21.)

JAPAN—SHIMONOSEKI KAIKYO.

*(1) Hayatomo Seto—Tidal Light-Buoy established.**(2) Gomiyose Su—Light-buoy withdrawn.*

No. 435 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1698 of 1921), are republished:—

(1) Hayatomo Seto.

Position.—At a distance of 3'63 cables, 288° , from Moji zaki 62-foot A. Lat. $33^{\circ} 58'$ N., long. $130^{\circ} 57'$ E. (*approx.*).

Description.—A conical tidal observation light buoy, painted half white and half red vertically, exhibiting a *fixed* light showing *white* over an arc of 180° and *red* over an arc of 180° in accordance with the painted colours on the buoy.

Remarks.—As the light-buoy is rotated by the streams the arcs of the colours change their bearings; in the case of an east-going stream the light shows *white* towards Hino yama warning signal station, and that of a west-going stream *red* towards the same station, the colours of the buoy corresponding.

(2) **Gomiyose Su.**

Position.—Off the south-western side of Gomiyose su (Hamo bank). Lat. $33^{\circ} 56' N.$, long. $130^{\circ} 53' E.$ (*approx.*).

Details.—The light-buoy with occulting green light has been withdrawn.

Charts affected.—No. 3114, Moji and Shimonoseki ko. (1).

“ 1578, Shimonoseki kaikyo.

“ 532, Approach to Shimonoseki kaikyo.

Publication.—Japan Pilot, 1914, pages 570, 574; Supplement No. 5, 1921.

Authority.—Tokyo (Department of Communications) Notices Nos. 1143 and 1277 of 1921. (H. 4817-21.)

AUSTRALIA, VICTORIA—PORT PHILLIP.

South Channel, Pile Light—Alteration in Sector.

No. 436 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1708 of 1921), are republished:—

Position.—Lat. $38^{\circ} 20' S.$, long. $144^{\circ} 51' E.$ (*approx.*).

Description.—An occulting light with white and red sectors.

Alteration.—The white sector, visible from the eastward, has been reduced by 6° on the southern side, the adjoining red sector being extended by a corresponding arc. The white sector now shows between the bearings 272° and 280° .

Charts affected.—No. 2747, Entrance to Port Phillip.

“ 1171, Port Phillip.

Publication.—List of Lights, Part VI, 1921, No. 2432.

Authority.—Melbourne Notice No. 5 of 1921. (H. 5430-21.)

PERSIAN GULF.

Rak az Zakum—Amendment to Chart No. 2837a.

No. 437 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1710 of 1921), are republished:—

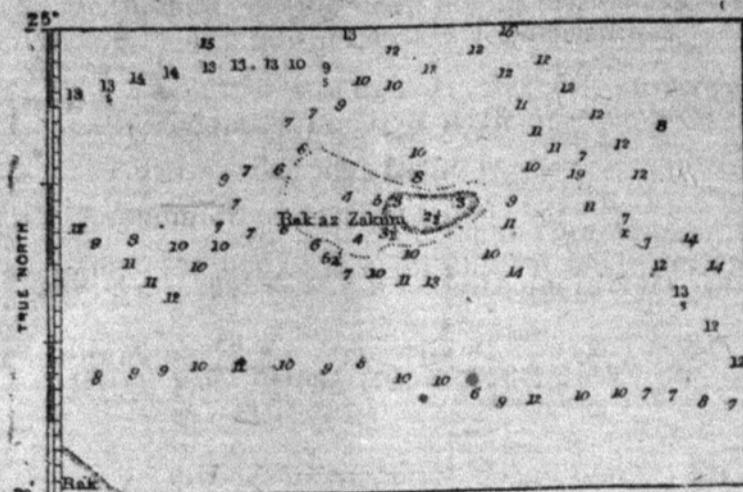
Position.—Lat. $24^{\circ} 49' N.$, long. $53^{\circ} 46' E.$ (*approx.*).

Details.—The accompanying reproduction of a portion of chart No. 2837a shows the necessary corrections to that chart with regard to the bank known as Rak az Zakum and depths in the vicinity.

Chart affected.—No. 2837a, Persian gulf—eastern sheet.

Publication.—Persian Gulf Pilot, 1915, page 91.

Authority.—H.M.S. *Cyclamen*, Hyd. Note No. 6 of 1921. (H. 5230-21.)



Note. - A broken danger line is to be placed on the chart to include this extension, with the note "*Reported to break (1921).*"

Caution.—All vessels should pass outside Pandora bank in heavy weather.

Charts affected.—No. 2525, Hokianga to Tutukaka.

“ 215, New Caledonia to New Zealand.

“ 1212, New Zealand.

Publication.—New Zealand Pilot, 1919, page 42.

Authority.—Wellington Notice No. 34 of 1921. (H. 5792-21.)

PHILIPPINE ISLANDS.

Tikao Pass—Existence of Shoal

No. 440 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1729 of 1921), are republished:—

Position.—At a distance of about 5 miles northward from Port San Jacinto.

Lat. $12^{\circ} 39' 45''$ N., long. $123^{\circ} 44' 50''$ E.

Depth.—8 fathoms (14 $\frac{1}{2}$), sand and rock.

Charts affected.—No. 3369, Luzon island to Masbate island.

“ 3370, San Bernardino strait and approaches.

“ 2577, Philippine islands between San Bernardino and Mindoro straits.

“ 943, Molucca passage to Manila.

“ 1263, China sea.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 487; Supplement No. 5, 1920.

Authority.—U. S. A. Government Chart. (H. 5305-21.)

GULF OF ADEN.

Berbera—Mooring Buoy replaced in position.

No. 441 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 122 M, of 1921), are republished:—

Former Notice.—No. 57-M of 1919. (This office No. 268 of 1919.)

Position.—At a distance of about 350 yards 6° , from Shaab Pier Head.

Details.—The white mooring buoy which was reported to have sunk, *vide* N. to M. quoted above has been raised and replaced in the above position.

Chart affected.—No. 3530, Berbera.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 540.

Authority.—The Port Officer, Aden, dated 18th October 1921.

INDIA, WEST COAST.

DELTA OF THE INDUS.

Sisa mouth—Beacon fallen.

No. 442 (first publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 124 M. of 1921), are republished:—

Position.—Lat. $24^{\circ} 13' 20''$ N., long. $67^{\circ} 18' 00''$ E.

Details.—The Single Spar beacon with 3 planks fixed at the top, which was temporarily erected at the Chan Mouth in 1914, is reported to have fallen.

Note.—This beacon is not shewn on the Admiralty Charts.

Charts which were temporarily affected.—No. 41, Cape Monze to Kediwari Mouth.

,, 39, Sind and Kutch Coasts.

,, 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 330.

Authority.—Chief Collector of Customs of Sind, dated 29th October 1921.

INDIA, WEST COAST—DELTA OF THE INDUS.

Hajamro Mouth—Beacon fallen.

No. 443 (first publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 125 M. of 1921), are republished:—

Position.—Lat. $24^{\circ} 07' 52''$ N., long. $67^{\circ} 20' 08''$ E.

Details.—The beacon of a mast 50 feet in height, with frame work top mark, consisting of two triangles placed horizontally, points together, on the right bank of the river, is reported to have fallen.

Charts affected.—No. 41, Cape Monze to Kediwari Mouth.

,, 39, Coasts of Sind and Kutch.

,, 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 331.

Authority.—Chief Collector of Customs in Sind, dated 29th October 1921.

INDIA, EAST COAST—CUDDALORE.

Alteration in Character of Light.

No. 444 (first publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 49 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Cuddalore will take place on or after the 1st February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $11^{\circ} 43' N.$

Longitude $79^{\circ} 46' E.$

Character of Light.—White Flashing Acetylene Light, giving a single quick flash every three seconds, i.e., flash $\frac{3}{10}$, second, darkness $2\frac{7}{10}$, seconds.

Description of Tower.—White Tower over square white house.

Height and Range.—About 65 feet above High Water Range 12 miles.

Arc of illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

" 71, Madras to Calimere Point.

" 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot, 1910, page 210, List of Light-houses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 553.

Remarks.—Nil.

Authority.—Port Officer, Cuddalore.

GULF OF ADEN.

CAUTION—Obstruction to navigation.

No. 445 (first publication).—

Subject.—The master of the SS. "Gharinda" reports having struck a light obstruction in the following position.

Position.—Lat. $13^{\circ} 24' N.$, long. $50^{\circ} 35' E.$ (By stellar observation.)

Caution.—Mariners are hereby warned.

Charts affected.—No. 6a, Gulf of Aden, eastern portion.

" 1012, Arabian sea.

Authority.—Marine Superintendent, B. I. S. N. Co., Calcutta, letter dated 17th November 1921.

AUSTRALIA—EAST COAST.

Moreton bay—Removal of south-west Spit buoy.

No. 446 (first publication).—

The Portmaster, Brisbane, has given notice No. 16 of 1921 that the red buoy marking the South-west Spit, Central Banks, Moreton Bay, will be removed on the 14th November 1921, and will not be re-established.

Charts affected.—Nos. 1670 A and B, 1029 and 1068; Australia Pilot, vol. 3, page 98. Queensland Sailing Directions, pages 86 and 89.

EASTERN ARCHIPELAGO—NEW GUINEA, NORTH-WEST COAST, SELE STRAIT.

Doom island—Light established.

No. 447 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1750 of 1921), are republished:—

Position.—On the outer end of a pier which extends 44 yards (40m2) from the eastern extremity of Doom island.

Lat. $0^{\circ} 53' 20'' S.$, long. $131^{\circ} 14' 00'' E.$

Abridged description.—Lt. F. Red, 7 ft., vis. 6 m.

Characteristics:

Character.—Fixed red.

Elevation.—7 feet (2^m1).

Visibility.—6 miles.

Remarks.—The light is obscured to the north-westward when bearing less than 143°.

Charts affected.—No. 1416, Sele strait.

„ 3745, Kabu islands to Tanjong Kasbi.

Publications.—List of Lights, Part VI, 1921, No. 2773a.

Eastern Archipelago Pilot, Part III, 1911, page 271.

Authority.—Hague Notice No. 1553 of 1921. (H. 5380-21.)

PHILIPPINE ISLANDS—TANON STRAIT, NEGROS ISLAND.

Guijulugan—Light established.

No. 448 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1755 of 1921), are republished:—

Position.—Lat. 10° 07' 18" N., long. 123° 16' 18" E.

Abridged description.—Lt. F. Red, 36 ft., vis. 7 m.

Characteristics:

Character.—Fixed red.

Elevation.—36 feet (11^m0).

Visibility.—7 miles.

Structure.—White concrete beacon, 30 feet (9^m1) in height.

Charts affected.—No. 2578, Eastern part of the Sulu or Mindoro sea.

„ 943, Molucca passage to Manila.

Publications.—List of Lights, Part VI, 1921, No. 1172a.

Eastern Archipelago Pilot, Part I, 1911, page 378.

Authority.—U. S. A. Hyd. Office Notice No. 3276 of 1921. (H. 5880-21.)

INDIA, WEST COAST—MALABAR COAST.

Mangalore Harbour—Caution.

No. 449 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1762 of 1921), are republished:—

Position.—Lat. 12° 51' N., long. 74° 50' E. (approx.).

Caution.—Considerable changes are reported to have taken place in the appearance and aspect of Mangalore since the date of the survey, and the lighthouse is difficult to distinguish. Caution is therefore necessary when fixing the ship's position or navigating in the vicinity.

Note.—A note to the above effect is to be inserted on the chart.

Chart affected.—No. 3267, Plan of Mangalore harbour.

Publication.—W.C. India Pilot, 1919, page 155.

Authority.—H.M.S. *Odin*, Remark Book, 1920. (H. 8364-20.)

JAPAN—HOKUSHŪ, NORTH COAST.

Sankeushi Misaki—Decreased Depths reported in vicinity.

No. 450 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1776 of 1921), are republished:—

Position.—Sankeushi misaki, lat. $44^{\circ} 53'$ N., long. $142^{\circ} 37'$ E. (*approx.*).

Caution.—Less water than charted is reported to exist between the rock, marked "P.D." on the charts, situated in lat. $44^{\circ} 52'$ N., long. $142^{\circ} 41'$ E. (*approx.*), and Sankeushi misaki to the northward.

Note.—A note "*Shoaler water reported (1921)*" is to be inserted in the above vicinity on the charts.

Charts affected.—No. 3600, Plan of Yeshashi anchorage.

“ 452, Hokushū island and La Pérouse strait.

Publication.—Japan Pilot, 1914, page 746.

Authority.—Tokyo Notice No. 268 of 1921. (H. 5863-21.)

JAPAN—SHIMONOSEKI KAIKYO.

Chuo Suido—Existence of Wreck.

No. 451 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1777 of 1921), are republished:—

Position.—At a distance of $1^{\circ} 20$ miles, 312° , from Hesaki lighthouse.
Lat. $33^{\circ} 58'$ N., long. $131^{\circ} 00'$ E. (*approx.*).

Description.—Sunken wreck of a three-masted sailing vessel.

Charts affected.—No. 1578, Shimonoseki kaikyo.

“ 532, Approach to Shimonoseki kaikyo.

“ 3225, Shimonoseki kaikyo to Maruyama zaki.

Authority.—Tokyo Notice No. 297 of 1921. (H. 6026-21.)

NORTH PACIFIC OCEAN.

Greenwich Islands—Reported to lie further eastward.

No. 452 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1784 of 1921), are republished:—

Position on charts.—Lat. $1^{\circ} 04'$ N., long. $154^{\circ} 43'$ E. (*approx.*).

Details.—The group of islands known as Greenwich islands are reported to lie about 9 miles further eastward than charted.

Note.—A note to the above effect is to be inserted on the charts.

Charts affected.—No. 2766, North-east coast of New Guinea, &c.

“ 781, Pacific ocean—north-west sheet.

Publication.—Pacific Islands Pilot, Vol. I, 1921, page 608.

Authority.—Tokyo Notice No. 275 of 1921. (H. 5866-21.)

The 12th November 1921.

JAVA, NORTH COAST.

Tanjong Priok Harbour Entrance—Alteration in Character of Light.

No. 417 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1620 of 1921), are re-published :—

Position.—On outer extremity of eastern breakwater.

Lat. $6^{\circ} 05'$ S., long. $106^{\circ} 53'$ E. (approx.)

New abridged description.—Lt. Occ. W. R. 42 ft., vis. 11 m.

Alteration.—The occulting white light has been replaced by an occulting white light with red sector.

Remarks.—The red sector covers the eastern portion of the harbour.

Note.—The sectors are not to be shown on the charts.

Charts affected.—No. 933, Batavia roads.

“ 2056, Sunda strait.

“ 1653, Island of Java—western portion.

Publications.—List of Lights, Part VI, 1921, No. 885.

Eastern Archipelago Pilot, Part II, 1913, page 92.

Authority.—Hague Notice No. 1435 of 1921. (H. 944/21).

GULF OF OMAN—ARABIAN COAST.

Maskat Island—Light to be expunged from the Charts.

No. 418 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1634 of 1921), are re-published :—

Position.—On point situated at a distance of about 2 cables south-eastward of Ras Maskat.

Lat. $23^{\circ} 38'$ N., long. $58^{\circ} 36'$ E. (approx.).

Details.—The flashing white light shown on the charts in the above position, which is no longer exhibited, is to be expunged; the note “Lt. Ho. (disused)” is to be substituted on the large scale chart No. 2869.

Charts affected.—No. 2869, Maskat and Al Matrah.

“ 10c, Maskat to Ras Sukra.

“ 38, Maskat to Karachi.

“ 2837a, Persian gulf—eastern sheet.

Publications.—List of Lights, Part VI, 1921, No. 290.

Persian Gulf Pilot, 1915, page 43; Supplement No. 6 1921.

Authority.—Hydrographic Department. (H. 4408/21).

INDIAN OCEAN—CEYLON.

Colombo W/T Station—Areas where Communication is ineffective or unreliable.

No. 419 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1635 of 1921), are re-published—

Position.—Colombo W/T station, lat. $6^{\circ} 55'$ N., long. $79^{\circ} 53'$ E. (approx.).

Call signal.—VPB.

Details.—The normal range of Colombo W/T station is 400 miles by day and 800 miles by night; but when conditions are favourable these distances are considerably exceeded.

There are, however, areas within the normal range of the station in which, for reasons not yet precisely determined, it is not feasible to ensure proper communication.

The following are the areas in which communication is not possible at any time—

(1) A line joining the following approximate positions—

- (a) Lat. 5° 20' N., long. 79° 40' E.
- (b) " 10° 40' N., " 81° 00' E.
- (c) " 12° 00' N., " 81° 30' E.
- (d) " 11° 00' N., " 83° 35' E.
- (e) " 6° 20' N., " 82° 10' E.

and thence to position (a).

(2) A line joining the following approximate positions—

- (a) Lat. 14° 10' N., long. 73° 40' E.
- (b) " 8° 00' N., " 76° 40' E.
- (c) " 7° 00' N., " 76° 30' E.
- (d) " 8° 20' N., " 70° 00' E.
- (e) " 9° 40' N., " 70° 20' E.

and thence to position (a).

The following are the areas in which indifferent communication is only possible at any time—

(3) A line joining the following approximate positions—

- (a) Lat. 1° 20' N., long. 83° 00' E.
- (b) " 8° 40' N., " 83° 45' E.
- (c) " 11° 40' N., " 90° 05' E.
- (d) " 0° 35' N., " 90° 10' E.

and thence to position (a).

(4) A line joining the following approximate positions—

- (a) Lat. 9° 40' N., long. 70° 20' E.
- (b) " 10° 35' N., " 64° 15' E.
- (c) " 9° 20' N., " 64° 00' E.
- (d) " 8° 20' N., " 70° 00' E.

and thence to position (a).

Publications.—West Coast of India Pilot, 1921, page 99.

Bay of Bengal Pilot, 1910, page 102; Supplement No. 5, 1920.

Authority.—Colombo Port Commission. (H. 4938/21.)

WESTERN AUSTRALIA, NORTH-WEST COAST—KING SOUND.

FitzRoy River Approach—Obstruction reported.

No. 420 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1637 of 1921), are republished:—

Position.—At a distance of about 2½ miles north-westward of the northern end of the Outer Rip shoal.

Lat. 17° 03' 30" S., long. 123° 28' 30" E.

Description.—A submerged obstruction over which there is a depth of about $2\frac{1}{2}$ fathoms (4^m6).

Note.—The above depth is to be encircled by a danger line on the charts and marked with the note “*Obstruction repd. (1921)*.”

Charts affected.—No. 1052, Hall point to Cape Bertholet, including King sound, etc.

“ 1048, Buccaneer archipelago to Bedout island.

“ 475, North-west coast of Australia.

Publication.—Australia Pilot, Vol. V, 1921, page 235.

Authority.—Fremantle Notice dated 8th June 1921. (H. 5134-21.)

PHILIPPINE ISLANDS.

Basilan Strait—Shoal to be expunged from Charts.

No. 421 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1652 of 1921), are republished:—

Position.—At a distance of about 3 miles southward of the southern end of Santa Cruz (Great) island.

Lat. $6^{\circ} 48'$ N., long. $122^{\circ} 04'$ E. (approx.).

Details.—The shoal over which a depth of less than 4 fathoms (7^m3) was reported in the year 1899 is to be expunged from the charts.

Charts affected.—No. 961, Basilan strait.

“ 928, Sulu archipelago.

“ 2576, Sulu Archipelago and north-east coast of Borneo.

“ 943, Molucca passage to Manila.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 245.

Authority.—U. S. A. Government Chart. (H. 4427-21.)

BAY OF BENGAL—NICOBAR ISLANDS, ST. GEORGE'S CHANNEL.

Kondul and Mencha' Islands—Shoal Water reported westward of

No. 422 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1666 of 1921), are republished:—

Position.—(a) Kondul island, lat. $7^{\circ} 13'$ N., long. $93^{\circ} 42'$ E. (approx.).
(b) Menchal island, lat. $7^{\circ} 24'$ N., long. $93^{\circ} 45'$ E.

Caution.—(a) A depth of 6 fathoms (11^m0) has been obtained about $1\frac{1}{2}$ miles westward of Kondul island, and shoal water appeared to extend over a considerable area in this locality.

A cautionary note “*6 fms. repd. probably less water (1921)*” is to be inserted to the westward of Kondul island, on the plan of St. George's channel on chart No. 840.

(b) Depths of $6\frac{1}{2}$ fathoms (11^m9) have been obtained between Menchal and Little Nicobar islands, where 21 and 30 fathoms are shown on the chart; shoal water is reported to extend across the channel between these two islands.

A cautionary note “*Shoal water repd. (1921)*” is to be inserted on the chart.

Charts affected.—No. 840, Nicobar islands, with plan.

“ 830, Bassein river to Pulo Penang.

Publication.—Bay of Bengal Pilot, 1910, pages 377, 378, 379.

Authority.—Director, Royal Indian Marine. (H. 6452-21.)

RED SEA—SUEZ BAY.

Suez Canal Entrance and approach—Corrections to Chart No. 734 with regard to Lighting and Buoyage.

No. 423 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1675 of 1921), are republished:—

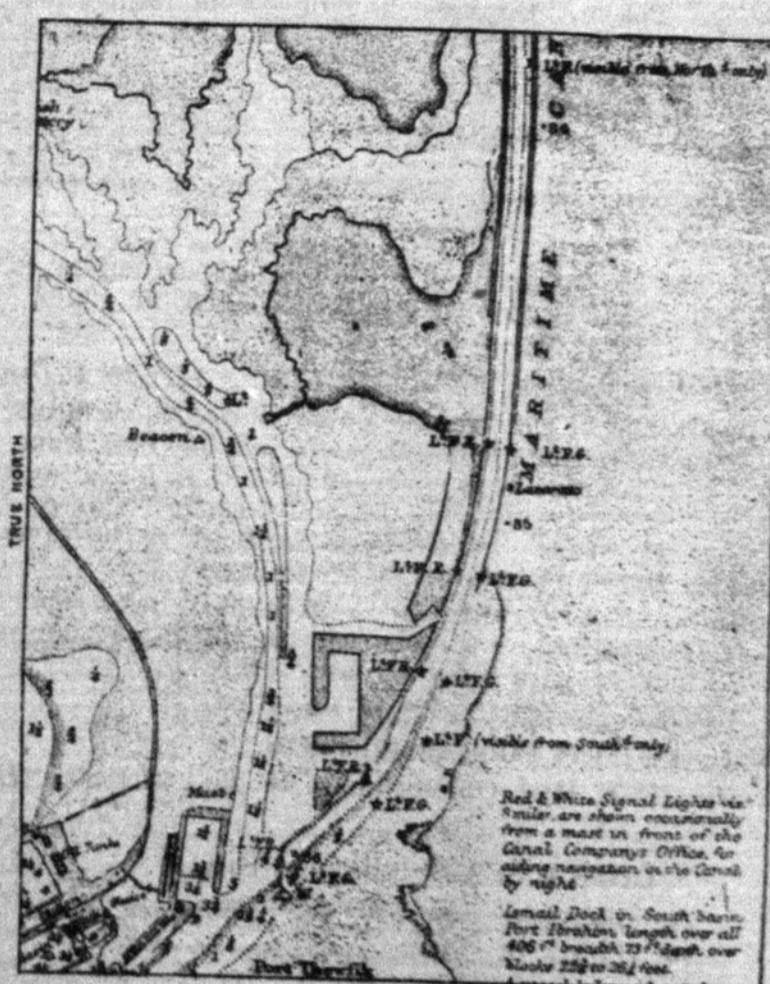
Position.—Kalah Kebireh beacon, lat. $29^{\circ} 55'$ N., long. $32^{\circ} 32'$ E (approx.).

Details.—The accompanying reproduction of portions of chart No. 734 shows the necessary corrections to that chart with regard to lights and light-buoys in the southern entrance to Suez Canal and the positions of light-buoys in the dredged channel eastward of Kalah Kebireh.

Chart affected.—No. 734, Suez bay.

Publication.—Red Sea, &c., Pilot, 1921, pages 75, 76.

Authority.—Suez Canal Company. (H. 5301-21.)



Reproduction of Portions of Chart No. 734.

JAPAN, INLAND SEA—KURUSIMA NO SETO.

Kono Se Light—Alteration in Character.

No. 424 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1682 of 1921), are republished:—

Position.—Lat. $34^{\circ} 08'$ N., long $132^{\circ} 59'$ E. (*approx.*)

New abridged description.—Lt. Gp. Fl. (2) *W. R. ev.* 6 sec., 27 ft., vis. 10 m. (U).

Alteration.—The character of the light has been altered from fixed white and red to *group flashing*, with *white* and *red* sectors, showing *two flashes every six seconds*, thus:

Two flashes	<u>eclipse</u>
2 sec.	4 sec.

Charts affected.—No. 131, Kurusima no seto.

“ 88, Gogo shima to Miyo shima.

“ 3325, Channels between Neko seto and Mekari seto.

“ 2875, Naikai (Seto uchi) or Inland sea.

Publications.—List of Lights, Part VI, 1921, No. 1959.

Japan Pilot, 1914, pages 332, 333.

Authority.—Tokyo, Department of Communications Notices Nos. 1181 and 1280 of 1921. (H. 5083-21.)

JAPAN—KAZAN OR VOLCANO ISLANDS.

Iwo Jima (Sulphur Island), East Coast—Rocks and Breakers reported off.

No. 425 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1683 of 1921), are republished:—

Position.—Higashi iwa, lat. $24^{\circ} 47'$ N., long. $141^{\circ} 23'$ E. (*approx.*).

Details.—Breakers and rocks above water have been observed extending from Higashi iwa to Iwo jima. Breakers have also been observed extending for a short distance from a point on the south-eastern side of the island about one mile southward of Furu yama summit. Mariners are warned accordingly.

Note.—Notes with regard to the breakers and rocks reported are to be inserted on the chart in the localities mentioned and marked with the year date “1921.”

Chart affected.—No. 1100, Plan of Iwo jima.

Publication.—Japan Pilot, 1914, page 38.

Authority.—U. S. Hyd. Office Notice No. 2964 of 1920. (H. 6551-20.)

CHINA SEA—SINGAPORE STRAIT.

(1) *Old Strait—Lights to be established.*

(2) *Calder Harbour—Existence of rock.*

(3) *Red Cliff Bank—Shoal eastward of.*

No. 426 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1689 of 1921), are republished:—

(1) **Old Strait.**

Date of establishment.—Shortly.

(a) *Position.*—Off the south-eastern extremity of Pulo Ketam.

Lat. $1^{\circ} 23' 52''$ N., long. $103^{\circ} 57' 25''$ E.

(b) *Position.*—Off the western extremity of Pulo Ubin.

Lat. $1^{\circ} 25' 18''$ N., long. $103^{\circ} 55' 30''$ E.

(c) *Position.*—At a distance of about half a mile eastward of the south-eastern extremity of Pulo Khatib Bongsu.
Lat. $1^{\circ} 26' 20''$ N., long. $103^{\circ} 52' 22''$ E.

(d) *Position.*—On the northern side of the strait, between Sungi Lunchu and Sungi Sinibong.
Lat. $1^{\circ} 28' 33''$ N., long. $103^{\circ} 49' 38''$ E.

Abridged descriptions.—Lt. Fl. ev. 3 sec. 6 ft. (U), in each case.

Character.—In each case *flashing white every three seconds*, thus:

Flash	eclipse.
1 sec.	2 sec.

Elevation.—6 feet ($1^{\text{m}}8$).

Structures.—Iron framework.

Remarks.—The lights will be unwatched.

Note.—No further Notice will be given.

(2) Calder Harbour.

Position.—At a distance of 0·98 of a mile, 282° , from the beacon on Johor hill.

Lat. $1^{\circ} 23'$ N., long. $104^{\circ} 05'$ E. (approx.).

Depth.— $2\frac{1}{2}$ fathoms ($4^{\text{m}}6$).

(3) Red Cliff Bank.

Position.—At a distance of 3·80 miles, 093° , from Tanah Merah Besar summit.

Lat. $1^{\circ} 21'$ N., long. $104^{\circ} 02'$ E. (approx.).

Depth.— $2\frac{1}{2}$ fathoms ($5^{\text{m}}0$).

Remarks—From the above position, which is the easternmost point of a triangular-shaped shoal, depths of 3 fathoms ($5^{\text{m}}5$) or less extend for distances of about 4 cables in north-westerly and south-westerly directions.

Charts affected.—No. 2403, Singapore strait.

" 2757, Banka strait to Singapore. (2) and (3).

" 3543, Approaches to Singapore. (2) and (3).

" 1355, Malacca strait. (2) and (3).

Publications.—List of Lights, Part VI, 1921, No. 791 (Remarks).

China Sea Pilot, Vol. I, 1916, pages 286, 289, 300 to 302.

Authority.—Hydrographic Department. (H. 5254, 5457 & 5458-21.)

INDIA, WEST COAST—BOMBAY HARBOUR.

Buoy Marking western limit of Spoil Ground Replaced by an "Aga" Gas Buoy.

No. 427 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 118M. of 1921), are republished:—

Date of exhibition.—25th October 1921.

Position.—At a distance of $6\frac{1}{2}$ cables 211° from Karanja Beacon at the Western limit of Spoil Ground, former buoy has now been removed.

Abridged description.—Lt. Fl. Red. ev. 7 sec. vis. 6m.

Description.—A conical buoy painted red exhibiting a red light thus:—

Light	Eclipse,
1 Sec.	6 Sec.

Visibility.—6 Miles in clear weather.

Remarks.—The buoy is an "Aga" Standard design.

Variation.—Nil.

Charts affected.—No. 2621, Bombay Harbour.

„ 655, Port of Bombay.

„ 737, Arnala Island to Kundari Island.

Publications.—West Coast of India Pilot, 1919, page 222.

Indian List of Lights, 40th issue, 1921, page 22.

Authority.—The Port Officer, Bombay, dated 25th October 1921.

PERSIAN GULF.

Sha't-al-Arab—Light Vessel temporarily replaced by a light buoy.

No. 428 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 119M. of 1921), are republished:—

Former Notice No. 108M. of 1921. (*This Office No. 394 of 1921.*)

Position.—Lat. $29^{\circ} 44\frac{1}{2}'$ N., long. $48^{\circ} 48\frac{1}{2}'$ E.

Details.—A Light Buoy, painted red, exhibiting a fixed white light has been placed in the position of the Shatt-al-Arab Light Vessel, which was notified to be temporarily withdrawn for repairs on the 25th October 1921.

Charts temporarily affected.—No. 1253, Shatt-al-Arab, Outer Bar to Fao.

„ 1235, Mouth of the Euphrates.

Authority.—The Commanding Officer, R. I. M. S. "Nearchus" Telegram dated 25th October 1921.

INDIA, WEST COAST—KARACHI HARBOUR.

Manora Point—Breakwater light re-exhibited.

No. 429 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 120M. of 1921), are republished:—

Former Notice—No. 112-M. of 1921. (*This Office No. 402 of 1921.*)

Position.—At the end of the Manora breakwater.

Lat. $24^{\circ} 47'$ N., long. $66^{\circ} 59'$ E.

Details.—The white occulting light shown from the end of the Manora breakwater which was reported temporarily extinguished, has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.

„ 41, Cape Monze to Kediwari Mouth.

„ 39, Sind and Kutch Coasts.

„ 38, Maskat to Karachi.

„ 826, Karachi to Vengurla.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, WEST COAST.

Karachi Harbour—Outer Gas Buoy Light re-exhibited.

No. 430 (*second publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Borabay, in Notice to Mariners (No. 121-M. of 1921), are republished:—

Former Notice—No. 81-M. of 1921. (*This Office No. 181 of 1921.*)

Position.—At a distance of about $3\frac{7}{10}$ Cables eastward of the light on the end of the Manora Breakwater.

Lat. $24^{\circ} 47' N.$, long. $67^{\circ} 59\frac{1}{4}' E.$

Details.—The occulting red light, exhibited from the Outer red Conical buoy, which was reported not burning has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.

“ 41. Cape Monze to Kediwari Mouth.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, SOUTH COAST—GULF OF MANAR.

No. 431 (*second publication*).—

Caution. Tuticorin Roadstead—Danger to navigation.

Former Notice.—No. 370 of 1921.

Subject.—The Marine Boiler reported to have been sunk in the following position has not been found and therefore may constitute a danger to navigation.

Position.—Hare island light N. $86^{\circ} W.$ (True).

Church island church N. $25^{\circ} W.$ (True).

Caution.—Mariners are hereby warned.

Charts affected.—No. 68a, Palk strait and Gulf of Manar, Sheet 1.
“ 67, Tuticorin Roadstead and harbour.

Authority.—Madras Notice No. 43, dated 21st October 1921.

BAY OF BENGAL.—BURMA COAST.

No. 432 (*second publication*).—

Caution. Report of derelict Brigantine “Hydrobandooli.”

Subject.—Brigantine “Hydrobandooli” reported abandoned off Diamond Island on 8th November 1921 and drifting in a N. W. direction.

The Master of the SS. “Shahjehan” reports having sighted on the 10th November 1921 the derelict “Hydrobandooli” mastless and rudderless in the following position:—

Position.—Lat. $16^{\circ} 17' N.$, long. $93^{\circ} 40' E.$

Subject.—On the 11th November 1921 derelict was sighted in the following position:—

Position.—Lat. $16^{\circ} 27' N.$, long. $93^{\circ} 17' E.$

Caution.—Mariners are hereby warned that this derelict constitutes a danger to Shipping.

Charts affected.—No. 829, Cocanada to Bassein river.

“ 70, Bay of Bengal.

Authority.—Principal Port Officer, Burma, Rangoon, telegrams dated 8th, 10th and 12th November 1921.

The 7th November 1921.

CHINA SEA.

Gaspar Strait, Northern Approach—Amended Position and Depth of Rock; Existence of Wreck.

No. 407 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1577 of 1921), are republished:—

(1) Amended position and depth of rock:

Former Notice.—No. 1505 of 1921. (*This Office No. 391 of 1921.*)

Position.—At a distance of about 46 miles northward of Langkuas island light and close north-eastward of the reported position given in the former Notice.
Lat. $1^{\circ} 46' 12''$ S., long. $107^{\circ} 31' 30''$ E.

Details.—Further information has been received that there is a depth of $2\frac{1}{4}$ fathoms ($4^{\text{m}} 1\text{d}$) over this rock.

Note.—The position of this rock and the depth are to be amended on the charts, and the 10-fathom shoal formerly shown in lat. $1^{\circ} 47' 20''$ S., long. $107^{\circ} 31' 00''$ E., is to be re-inserted.

(2) Existence of wreck:

Position.—At a distance of about 3 miles south-eastward of the $2\frac{1}{4}$ -fathom rock referred to above.

Lat. $1^{\circ} 48' 30''$ S., long. $107^{\circ} 33' 40''$ E. (*approx.*).

Description.—Sunken wreck.

Charts affected.—No. 2149, Banka and Gaspar straits.

„ 941a, Eastern archipelago—sheet I.

„ 1263, China sea (1).

„ 748b, Indian ocean—northern portion. (1).

Publication.—China Sea Pilot, Vol. II, 1915, page 185.

Authority.—Hague Notice No. 1562 of 1921. (*H. 5373-21.*)

CELEBES, WEST COAST—MAKASSAR STRAIT.

Cape Mandar (Tanjong Rangasa) Light—Amended Details.

No. 408 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1581 of 1921), are republished:—

Former Notice.—No. 1134 of 1921. (*This Office No. 309 of 1921.*)

Position.—Lat. $3^{\circ} 34'$ S., long. $118^{\circ} 56'$ E. (*approx.*).

New abridged description.—Lt. Gp. Fl. ev. 10 sec., 308 ft. vis. 24 m.

Details.—This group *flashing white* light has an elevation of 308 feet ($93^{\text{m}} 9$) and is visible for a distance of 24 miles; the arc of visibility is from 258° through west to 147° .

Charts affected.—No. 2662, Plan of Majene road and Balangnipa road.

„ 2637, South part of the Strait of Makassar.

„ 941b, Eastern archipelago—sheet II.

Publications.—List of Lights, Part VI, 1921, No. 1023.

Eastern Archipelago Pilot, Part II, 1913, page 403.

Authority.—Hague Notice No. 1438 of 1921. (*H. 4947-21.*)

JAPAN—HOKUSHŪ ISLAND.

Suisho and Go Yo Mai Channels—Existence of Shoals.

No. 409 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1583 of 1921), are republished:—

(1) Suisho channel:

(a) Position.—At a distance of 3 miles, 021° , from the 133-foot Δ at the western end of Yuru jima.

Yuru jima 133-ft. Δ , lat. $43^\circ 24' N.$, long. $146^\circ 02' E.$ (*approx.*).

Depth.— $2\frac{1}{2}$ fathoms (4 m 6).

(b) Position.—At a distance of 1.67 miles, 325° , from Yuru jima 133-foot Δ .

Depth.— $3\frac{1}{2}$ fathoms (6 m 4).

(2) Go yo mai channel:

Position.—At a distance of 7.44 cables, 347° , from Noshap saki light-house.

Lat. $43^\circ 24' N.$, long. $145^\circ 49' E.$ (*approx.*).

Depth.— $2\frac{1}{2}$ fathoms (4 m 1).

Charts affected.—No. 1268, Go yo mai channel.

„ 507, Go yo mai channel to Nemoro kaikyo. (2).

„ 452, Hokushū island. (1) (a).

Publication.—Japan Pilot, 1914, pages 731, 732, 734.

Authority.—Tokyo Notice No. 248 of 1921. (H. 5420-21.)

SOUTH ATLANTIC AND INDIAN OCEANS.

W-T Stations discontinued.

No. 410 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1597 of 1921), are republished:—

* Former Notice.—No. 1473 of 1921. (*This Office No. 387 of 1921.*)

(1) The undermentioned Admiralty W-T station has been permanently discontinued:—

Station.	Position.
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Mauritius	... Lat. $20^\circ 10' S.$, long. $57^\circ 35' E.$ (<i>approx.</i>).
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Remarks.—The above station is to be expunged from the charts.

(2) The undermentioned Admiralty W-T station has been temporarily discontinued:—

Station.	Position.
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Falkland islands	
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(Stanley)	... Lat. $51^\circ 41' S.$, long. $57^\circ 49' W.$ (<i>approx.</i>).
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Falkland islands (Stanley) will be permanently discontinued immediately the new colonial station on Falkland islands commences operating.

Note.—This station is to be re-inserted on the charts with the note “Temporarily discontinued, 1921.”

Charts affected.—No. 2202b, South Atlantic ocean—western portion. (2).

„ 748a, Indian ocean—southern portion. (1).

„ 3778, Telegraph chart of The World—sheet 1. (2).

„ 3779, Telegraph chart of The World—sheet 2. (1).

Publication.—South America Pilot, Part I, 1911, page 538; Supplement No. 5, 1920.

Authority.—The Lords Commissioners of the Admiralty. (H. 4588-21.)

PERSIAN-GULF—KUWAIT HARBOUR.

Ras-al-Arz (Ardh)—Beacon collapsed.

No. 411 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 113M of 1921), are republished:—

Position.—Lat. $29^{\circ} 21' N.$, long. $48^{\circ} 06' E.$

Details.—The black pyramidal beacon 32 feet high surmounted by a black ball, on the extreme of Ras-al-Arz has collapsed.

Note.—A mast with disc has been temporarily erected on the site.

Remarks.—The temporary fixed white light visible 7 miles, exhibited from the beacon, has now been placed on the roof of the Care-taker's house 35 yards southward of the ruined beacon.

Charts affected.—No. 22, Kuwait Harbour.

“ 2837b, Persian Gulf, Western Sheet.

Publications.—Persian Gulf Pilot, 1915, page 148, Supplement No. 6, 1921.

Indian List of Lights, 40th issue, 1921, No. 24.

List of Lights, Part VI, 1921, No. 303.

Authority.—Resident, Bushire, Telegram, dated 13th October 1921.

INDIA—WEST COAST.

Buoys between Alibag and Bhatkal relaid.

No. 412 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 114M of 1921), are republished:—

Former Notice.—No. 77-M. of 1921. (*This Office No. 160 of 1921.*)

Details.—The following buoys, which were withdrawn during the South-West monsoon, were relaid in their respective positions on the date noted against them:—

Alibag Reef Buoy ...	...	...	8th October 1921.
Ambalgarh Reef Buoy	...	...	26th September 1921.
Malvan-Rajkot Rocks Buoy ...	...	14th	“ “ “
Malvan Harbour Buoy ...	...	11th	“ “ “
Malvan Johnston Castle Rock Buoy	...	12th	“ “ “
Malvan Outer Rock Buoy ...	...	23rd	“ “ “
Chaldea Rock Buoy ...	...	24th	“ “ “
Bubra Rock Buoy ...	...	4th	October 1921.
Vengurla Harbour South Rock Buoy	...	25th	September 1921.
Madeshwar Dart Rock Buoy	...	22nd	“ “ “
Bhatkal Rock Buoy ...	...	20th	“ “ “

Authority.—The Commissioner of Customs, Salt and Excise, Camp via Bombay, dated 17th October 1921.

RED SEA.

Telegraph Cable Buoys temporarily established. Caution.

No. 413 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 115M. of 1921), are republished :—

Positions.—(I) Lat. $29^{\circ} 25' 00''$ N.
Long. $32^{\circ} 33' 30''$ E.
(II) Lat. $29^{\circ} 22' 00''$ N.
Long. $32^{\circ} 39' 30''$ E.
(III) Lat. $28^{\circ} 32' 30''$ N.
Long. $33^{\circ} 04' 00''$ E.
(IV) Lat. $28^{\circ} 29' 00''$ N.
Long. $33^{\circ} 13' 30''$ E.
(V) Lat. $28^{\circ} 16' 00''$ N.
Long. $33^{\circ} 31' 00''$ E.
(VI) Lat. $28^{\circ} 04' 00''$ N.
Long. $33^{\circ} 37' 00''$ E.
(VII) Lat. $27^{\circ} 56' 30''$ N.
Long. $33^{\circ} 45' 00''$ E.

Description.—All these buoys are surmounted with Staff and Flag over Cage and numbers two to six inclusive are light buoys, exhibiting a flashing white light.

Caution.—Vessels navigating in the vicinity of the above buoys are requested to give them a wide berth.

Note.—Further notice will be given when the buoys have been withdrawn.

Charts temporarily affected.—No. 2838, Strait of Jubal (VII).

„ 757, Gulf of Suez.
„ 8a, Red Sea—Sheet I.
„ 2523, Red Sea.

Authority—Eastern Telegraph Company, Bombay, dated 17th October 1921.

INDIA, WEST COAST—KATHIAWAR COAST.

Navibandar—Non-existence of wreckage.

No. 414 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 116M. of 1921), are republished :—

Former notice—No. 58M. of 1921 (*This Office No. 138 of 1921*) cancelled.

Position.—At a distance of about 7 miles, 178° , from Navibandar Light.

Lat. $21^{\circ} 20'$ N., long. $69^{\circ} 47\frac{1}{2}'$ E.

Details.—Further information has been received that the wreckage with mast projecting 14 feet out of water has disappeared.

Charts, which were temporarily affected.—No. 1420, Dwarka Point to Diu Head.
„ 2736, Gulf of Kutch to Vizianadug.
„ 826, Karachi to Vengurla.
„ 1012, Arabian Sea.

Authority.—The Port and Chief Customs Officer, Porbander State, dated 11th October 1921.

CEYLON, SOUTH COAST.

Point de Galle—Light re-exhibited.

No. 415 (third publication).—

Former notice—No. 327 of 1921.

Subject.—The Point de Galle light will be re-exhibited from the 18th October 1921.

Position.—Lat. $6^{\circ} 1'$ N., long. $80^{\circ} 13'$ E.

Charts affected.—No. 819, Approaches to Galle Harbour.

„ 3700, Colombo to Galle.
„ 3265, Galle to Little Basses.
„ 813, Ceylon, south part.
„ 828, Cape Comorin to Cocanada.
„ 70, Bay of Bengal.

Publications.—List of Lights, Part VI, 1921, No. 511.

Bay of Bengal Pilot, 1910, page 118.

Authority.—Master Attendant, Colombo, Notice dated 17th October 1921.

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Leading marks over Outer Bar inaccurate.

No. 416-I (third publication).—

Subject.—It is hereby notified that as the navigable channel at the mouth of the Karnafuli river is rapidly changing, the leading marks over the Outer Bar are not accurate at present.

Authority.—Port Officer, Chittagong, Notice dated the 2nd November 1921.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,

Port Officer of Calcutta.



The Calcutta Gazette

WEDNESDAY, DECEMBER 7, 1921.

APPENDIX.

NOTICES TO MARINERS.

The following Notices are republished for general information.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta.

A. MARR,
*Secretary to the Government of Bengal,
Marine Department.*

CALCUTTA, the 25th November 1921.

*INDIA, EAST COAST—NEGAPATAM.

Alteration in Character of Light.

No. 453 (first publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 51 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (This Office No. 403 of 1921.)

Subject.—The alteration in the character of the light at Negapatam will take place on or after the 15th February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude 10° 45' N.

Longitude 79° 51' E.

Character of Light.—White Flashing Acetylene Light, giving two quick flashes every six seconds, i.e., flash $\frac{1}{6}$ second, short darkness $1\frac{1}{6}$ second, long darkness 4 seconds.

Description of Tower.—Masonry tower Painted White.

Height and Range.—About 80 feet above high water. Range 14 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

„ 71, Madras to Calimere Point.

„ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 203.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 551.

Authority.—Port Officer, Negapatam.

INDIA, EAST COAST—BIMLIPATAM.

Alteration in Character of Light.

No. 454 (first publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 52 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Bimlipatam will take place on or after the 1st April 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $17^{\circ} 53'$ N.

Longitude $83^{\circ} 27'$ E.

Character of Light.—White Flashing Acetylene Light, giving one single quick flash every 3 seconds, i.e., $\frac{3}{10}$ flash and $2\frac{7}{10}$ darkness.

Description of Tower.—Masonry Tower.

Height and Range.—About 35 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal,

„ 829, Cocanada to Bassein River.

„ 1424, Bimlipatam to Gopalpore.

„ 1711, Narsapur Point to Bimlipatam.

Publications.—Bay of Bengal Pilot of 1910, page 252.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 575.

Authority.—Port Officer, Vizagapatam.

INDIA, EAST COAST—PAMBAN.

Alteration in Character of Light.

No. 455 (first publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 53 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the Light at Pamban will take place on or after the 1st March 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $9^{\circ} 17' N.$

Longitude $79^{\circ} 13' E.$

Character of Light.—White flashing acetylene Light giving three quick flashes every nine seconds, i.e., $\frac{3}{10}$ flash, $1\frac{5}{6}$ short darkness and $5\frac{1}{6}$ long darkness.

Description of Tower.—Masonry Tower painted white.

Height and Range.—About 97 feet above high water. Range 14 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

- „ 68a, Palk Strait and Gulf of Manar.
- „ 69, Gulf of Manar—Pamban Pass.
- „ 3581, Approaches to Pamban Pass.
- „ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 182.

List of Lighthouses and Light vessels in British India.

List of Lights, Part VI, 1921, No. 542.

Authority.—Port Officer, Pamban.

INDIA, EAST COAST—MASULIPATAM.

Alteration in Character of Light.

No. 456 (*first publication*).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 54 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921*)

Subject.—The alteration in the character of the light at Masulipatam will take place on or after the 15th March 1922 from which date the present occulting light will be discontinued.

Position.—Latitude $16^{\circ} 10' N.$

Longitude $81^{\circ} 11' E.$

Character of Light.—White flashing Acetylene Light, giving three quick flashes every 9 seconds, i.e., $\frac{3}{10}$ flash, $1\frac{5}{6}$ short darkness and $5\frac{1}{6}$ long darkness.

Description of Tower.—White Masonry tower.

Height and Range.—About 33 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward

Charts affected.—No. 70, Bay of Bengal.

- „ 828, Cape Comorin to Cocanada.
- „ 1894, Ramapatnam to Narsapur Point.

Publications.—Bay of Bengal Pilot of 1910, page 273.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 571.

Authority.—Port Officer, Cocanada.

GULF OF ADEN—JUBITI NORTHERN APPROACH.

Gulf of Tajura—Information with regard to Buoyage.

No. 457 (first publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 127M. of 1921), are republished:—

(1) Mashah Island Buoy re-established.

Former Notice.—No. 106M. of 1921. (*This office No. 383 of 1921.*)

Position.—At a distance of about $2\frac{1}{2}$ miles 271° from the Mashah Island Light-house and about $\frac{1}{2}$ of a mile, 185° from its former charted position.

Lat. $11^{\circ} 48' N.$, long. $43^{\circ} 10' E.$

Details.—The black buoy which was previously reported as missing, *vide* N to M quoted above, has now been replaced in the above position.

Remarks.—This buoy is now useless as an aid to navigation and if relied on will lead vessels into difficulties.

(2) Jubiti Bay—Buoy removed.

Position.—About 2 Cables Northward of Platean du Heron.

Lat. $11^{\circ} 36' 50'' N.$, long. $43^{\circ} 09' 35'' E.$

Details.—The white can buoy in the above position has been removed or has sunk.

Chart affected.—No. 253, Jebel Jan to Shab Kulangarit with Plan.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, pages 524-526.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—BERBERA.

*Shaab Pier Light extinguished.**Caution with regard to approaching Berbera.*

No. 458 (first publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 128M. of 1921), are republished:—

(1) Shaab Pier Light extinguished.

Position.—On Shaab Pier head.

Lat. $10^{\circ} 26\frac{1}{2}' N.$, long. $45^{\circ} 1\frac{1}{4}' E.$

Details.—The fixed white and green light visible 2 miles, exhibited from the Shaab Pier head is no longer exhibiting and should be expunged from the publications.

(2) Caution with regard to approaching Berbera.

Position.—Of the fixed white light near the old light-house.

Lat. $10^{\circ} 25' N.$, long. $44^{\circ} 59' E$

Details.—Great care is necessary for a stranger approaching Berbera at night as owing to the frequent dust storms the visibility of the fixed white light from a mast near the old light-house is not to be depended on, further more during the trading season (from October to March) dhows frequently anchor close in shore in the vicinity of the light-house making it very difficult at times to distinguish between their anchor lights and the fixed light.

Chart affected.—No. 3530, Berbera.

Publications.—List of Lights, Part VI, 1921, No. 257.

Indian List of Lights, 40th issue, 1921, No. 2.

Red Sea and Gulf of Aden Pilot, 1921, page 542.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—ZEILA ROADSTEAD AND APPROACHES.

Caution with regard to Discoloured water.

No. 459 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 129M. of 1921), are republished:—

Position.—Aibat island beacon, Lat. $11^{\circ} 31' N.$, long. $43^{\circ} 28\frac{1}{2}' E.$

Caution.—Discoloured water is reported to exist westward of a line drawn from the white beacon on Aibat island, in a direction 133° ($S. 44^{\circ} E.$ Mag.) to the southern point of Sea Gull shoal.

The water is very much discoloured making it impossible to distinguish between the deep and shoal water, as may easily be done to seaward and in the most of the adjacent bays.

Variation.— $3^{\circ} W.$

Charts affected.—No. 919, Plan of Zeila roadstead.

„ 253, Jebel Jan to Shaab Kulangarit.

„ 8e, Red Sea Sheet-V.

„ 6b, Gulf of Aden, Western portion.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 532.

Authority.—The Port Officer, Aden, dated 19th October 1921.

RED SEA.

Telegraph. Cable Buoys removed.

No. 460 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 130M. of 1921), are republished:—

Former Notice.—No. 115-M. of 1921. (*This office No. 413 of 1921.*)

Positions.—(1) Lat. $29^{\circ} 25' 00'' N.$

Long. $32^{\circ} 33' 30'' E.$

(2) Lat. $29^{\circ} 22' 00'' N.$

Long. $32^{\circ} 39' 30'' E.$

(3) Lat. $28^{\circ} 32' 30'' N.$

Long. $33^{\circ} 04' 00'' E.$

(4) Lat. $28^{\circ} 29' 00'' N.$

Long. $33^{\circ} 15' 30'' E.$

(5) Lat. $28^{\circ} 16' 00'' N.$

Long. $33^{\circ} 31' 00'' E.$

(6) Lat. $28^{\circ} 04' 00'' N.$

Long. $33^{\circ} 37' 00'' E.$

(7) Lat. $27^{\circ} 56' 30'' N.$

Long. $33^{\circ} 45' 00'' E.$

Details.—The buoys in the above mentioned positions which were temporarily laid in connection with the telegraph cable work in the Red Sea, have been withdrawn.

Charts which were temporarily affected.—No. 2838, Strait of Jubal.

„ 757, Gulf of Suez.

„ 8a, Red Sea—Sheet I.

„ 2523, Red Sea.

Authority.—The Eastern Telegraph Company, Bombay, dated 24th October 1921.

BAY OF BENGAL, BURMA—BASSEIN RIVER ENTRANCE.

Diamond island—Baroni rock buoy.

No. 461 (first publication).—

Former Notice.—No. 127 of 1921.

Subject.—The lighted gas buoy marking the Baroni rock has been replaced by an unlighted spherical buoy painted black with a white horizontal band.

Charts affected.—No. 834, Bassein river and approaches

„ 3772, Calventuras to Bassein river.

„ 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447; Supplement No. 5 of 1920.

Authority.—Port Officer, Bassein, Burma, Notice, dated 17th November 1921.

BAY OF BENGAL—BURMA COAST.

Bassein river entrance—Buoy established.

No. 462 (first publication).—

Subject.—A black can buoy has been laid in 4 fathoms L. W. O. S. with Diamond island flagstaff 260°, distant 4 cables.

Position.—Lat. 15° 51' 50" N., long. 94° 17' 20" E.

Charts affected.—No. 834, Bassein river and approaches.

„ 3772, Calventuras to Bassein river.

„ 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447.

Authority.—Port Officer, Bassein, Burma, Notice, dated 18th November 1921.

BAY OF BENGAL—BURMA COAST.

Derelict Brigantine "Adrosbandooli" salved.

No. 463 (first publication).—

Former Notice.—No. 432 of 1921.

Subject.—The derelict Brigantine "Adrosbandooli" reported in the above Notice as "Hydrobandooli" has since been salved and is no longer a danger to shipping.

Authority.—Principal Port Officer, Burma, Rangoon, telegram, dated 24th November 1921.

The 18th November 1921.

EASTERN ARCHIPELAGO—CELEBES, EAST COAST.

Lasolo Bay—Existence of Reef.

No. 433 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1696 of 1921), are republished:—

Position.—At a distance of about 3½ miles southward of North reef.
Lat. $3^{\circ} 34' 30''$ S., long. $122^{\circ} 29' 00''$ E.

Depth.—One fathom (1 m).

Remarks.—There is practically no discolouration in the water to mark this reef.

Charts affected.—No. 3148, Salabangka strait and approaches.

„ 3616, Tomori gulf to Salayar strait.

„ 942a, Eastern archipelago—sheet 3.

Publication.—Eastern Archipelago Pilot, Part II, 1913, page 484.

Authority.—Hague Notices Nos. 1664 and 1790 of 1921. (H. 5310-21)

CHINA, EAST COAST—FORMOSA STRAIT, HU I TAU BAY ENTRANCE.

Dodd Island—New Light established.

No. 434 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1697 of 1921), are republished:—

Former Notice.—No. 998 of 1921 (*This Office No. 281 of 1921*); hereby cancelled.

Position.—Lat. $21^{\circ} 26'$ N., long. $118^{\circ} 30'$ E. (approx.).

New abridged description.—Lt. Gp. Fl. (2) ev. 15 sec., 147 ft., vis. 18m.

Details.—The occulting light with white and red sectors has been replaced by a *group flashing* light, with white and red sectors, showing two flashes in quick succession *every fifteen seconds*.

The power of the light has been increased; the other characteristics remain unaltered.

Remarks.—The temporary flashing white light has been discontinued.

Charts affected.—No. 1959, Hu i tau and Chimo bays.

„ 1760, The Brothers to Ocksen islands.

„ 1968, Formosa island and strait.

„ 2412, Amoy to Nagasaki.

„ 1262, Hongkong to Gulf of Liau tung.

„ 1263, China sea.

Publications.—List of Lights, Part VI, 1921, No. 1544.

China Sea Pilot, Vol. V, 1912, pages 135, 136.

Authority.—Shanghai Notice No. 734 of 13th July 1921. (H. 5294-21.)

JAPAN—SHIMONOSEKI KAIKYO.

(1) *Hayatomo Seto—Tidal Light-Buoy established.*
(2) *Gomiyose Su—Light-buoy withdrawn.*

No. 435 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1698 of 1921), are republished:—

(1) Hayatomo Seto.

Position.—At a distance of 3·63 cables, 288° , from Moji zaki 62-foot A. Lat. $33^{\circ} 58'$ N., long. $130^{\circ} 57'$ E. (approx.).

Description.—A conical tidal observation light buoy, painted half white and half red vertically, exhibiting a *fixed* light showing white over an arc of 180° and red over an arc of 180° in accordance with the painted colours on the buoy.

Remarks.—As the light-buoy is rotated by the streams the arcs of the colours change their bearings; in the case of an east-going stream the light shows *white* towards Hino yama warning signal station, and that of a west-going stream *red* towards the same station, the colours of the buoy corresponding.

(2) Gomiyose Su.

Position.—Off the south-western side of Gomiyose su (Hamo bank). Lat. $33^{\circ} 56'$ N., long. $130^{\circ} 53'$ E. (*approx.*).

Details.—The light-buoy with occulting green light has been withdrawn.

Charts affected.—No. 3114, Moji and Shimonoseki ko (1).

„ 1578, Shimonoseki kaikyo.

„ 532, Approach to Shimonoseki kaikyo.

Publication.—Japan Pilot, 1914, pages 570, 574; Supplement No. 5, 1921.

Authority.—Tokyo (Department of Communications) Notices Nos. 1143 and 1277 of 1921. (*H. 4817-21.*)

AUSTRALIA, VICTORIA—PORT PHILLIP.

South Channel, Pile Light—Alteration in Sector.

No. 436 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1708 of 1921), are republished:—

Position.—Lat. $38^{\circ} 20'$ S., long. $144^{\circ} 51'$ E. (*approx.*).

Description.—An occulting light with *white* and *red* sectors.

Alteration.—The *white* sector, visible from the eastward, has been reduced by 6° on the southern side, the adjoining *red* sector being extended by a corresponding arc. The *white* sector now shows between the bearings 272° and 280° .

Charts affected.—No. 2747, Entrance to Port Phillip.

„ 1171, Port Phillip.

Publication.—List of Lights, Part VI, 1921, No. 2432.

Authority.—Melbourne Notice No. 5 of 1921. (*H. 5430-21.*)

PERSIAN GULF.

Rak az Zakum—Amendment to Chart No. 2837a.

No. 437 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1710 of 1921), are republished:—

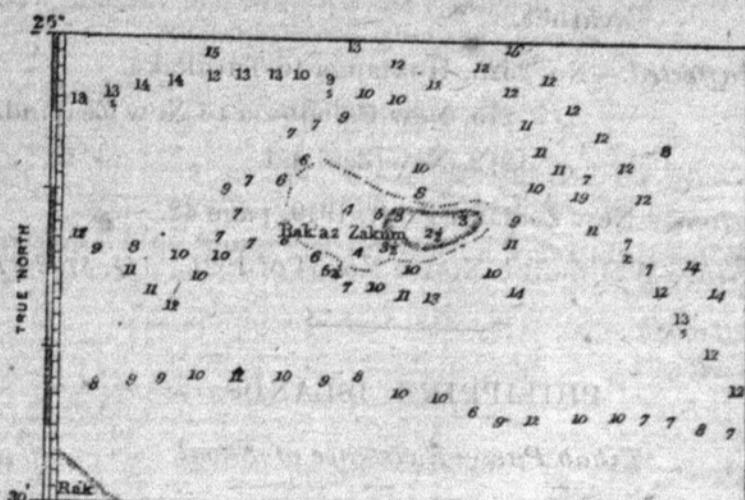
Position.—Lat. $24^{\circ} 49'$ N., long. $53^{\circ} 46'$ E. (*approx.*).

Details.—The accompanying reproduction of a portion of chart No. 2837a shows the necessary corrections to that chart with regard to the bank known as Rak az Zakum and depths in the vicinity,

Chart affected.—No. 2837a, Persian gulf—eastern sheet.

Publication.—Persian Gulf Pilot, 1915, page 91.

Authority.—H.M.S. *Cyclamen*, Hyd. Note No. 6 of 1921. (H. 5230-21.)



Reproduction of Portion of Chart No. 28374

JAPAN—GULF OF TOKYO.

Yokohama North Breakwater Light—Alteration in Character.

No. 438 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1721 of 1921), are republished:—

Position.—On the outer end of the north breakwater.
Lat. $35^{\circ} 28'$ N., long. $139^{\circ} 40'$ E. (approx.).

New abridged description.—Lt. F. Red, 41 ft., vis. 12 m.

Alteration.—The character of the light has been altered from occulting red to fixed red.

Remarks.—The visibility of the light is now 12 miles.

Charts affected.—No. 3109, Yokohama bay.

“ 3548, Yokohama to Uraga.

“ 2657, Gulf of Tokyo or Yedo.

“ 996, Kii suido to Tokyo.

“ 3334, Tokyo to Sendai bay.

Publications.—List of Lights, Part VI, 1921, No. 2056.

Japan Pilot, 1914, page 206; Supplement No. 5, 1921.

Authority.—Tokyo, Department of Communications, Notice No. 1262 of 1921. (H. 5343-21.)

NEW ZEALAND, NORTH ISLAND.

Pandora Bank—Reported to have extended; Caution.

No. 439 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1728 of 1921), are republished:—

Position.—Cape Marie Van Diemen lighthouse, lat. $34^{\circ} 29'$ S., long. $172^{\circ} 39'$ E. (approx.).

Details.—It has been reported from the lighthouse that Pandora bank breaks in heavy weather for a distance of about 2 miles further to the north-eastward and about 4 miles further to the eastward and south-eastward than charted.

Note.—A broken danger line is to be placed on the chart to include this extension, with the note "Reported to break (1921.)"

Caution.—All vessels should pass outside Pandora bank in heavy weather.

Charts affected.—No. 2525, Hokianga to Tutukaka.

" 215, New Caledonia to New Zealand.

" 1212, New Zealand.

Publication.—New Zealand Pilot, 1919, page 42.

Authority.—Wellington Notice No. 34 of 1921. (H. 5792-21.)

PHILIPPINE ISLANDS.

Tikao Pass—Existence of Shoal.

No. 440 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1729 of 1921), are republished:—

Position.—At a distance of about 5 miles northward from Port San Jacinto.

Lat. $12^{\circ} 39' 45''$ N., long. $123^{\circ} 44' 50''$ E.

Depth.—8 fathoms (14^m6), sand and rock.

Charts affected.—No. 3369, Luzon island to Masbate island.

" 3370, San Bernardino strait and approaches.

" 2577, Philippine islands between San Bernardino and Mindoro straits.

" 943, Molucca passage to Manila.

" 1263, China sea.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 487; Supplement No. 5, 1920.

Authority.—U. S. A. Government Chart. (H. 5305-21.)

GULF OF ADEN.

Berbera—Mooring Buoy replaced in position.

No. 441 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 122 M. of 1921), are republished:—

Former Notice.—No. 57-M of 1919. (*This office No. 268 of 1919.*)

Position.—At a distance of about 350 yards 6° , from Shaab Pier Head.

Details.—The white mooring buoy which was reported to have sunk, *vide* N. to M. quoted above has been raised and replaced in the above position.

Chart affected.—No. 3530, Berbera.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 540.

Authority.—The Port Officer, Aden, dated 18th October 1921.

INDIA, WEST COAST.

DELTA OF THE INDUS.

Sisa mouth—Beacon fallen.

No. 442 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 124 M. of 1921), are republished:—

Position.—Lat. $24^{\circ} 13' 20''$ N., long. $67^{\circ} 18' 00''$ E.

Details.—The Single Spar beacon with 3 planks fixed at the top which was temporarily erected at the Chan Mouth in 1914, is reported to have fallen.

Note.—This beacon is not shewn on the Admiralty Charts.

Charts which were temporarily affected.—No. 41, Cape Monze to Kediwari Mouth.

„ 39, Sind and Kutch Coasts.

„ 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 330.

Authority.—Chief Collector of Customs of Sind, dated 29th October 1921.

INDIA, WEST COAST—DELTA OF THE INDUS.

Hajamro Mouth—Beacon fallen.

No. 443 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 125 M. of 1921), are republished:—

Position.—Lat $24^{\circ} 07' 52''$ N., long. $67^{\circ} 20' 08''$ E.

Details.—The beacon of a mast 50 feet in height, with frame work top mark, consisting of two triangles placed horizontally, points together, on the right bank of the river, is reported to have fallen.

Charts affected.—No. 41, Cape Monze to Kediwari Mouth.

„ 39, Coasts of Sind and Kutch.

„ 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 331.

Authority.—Chief Collector of Customs in Sind, dated 29th October 1921.

INDIA, EAST COAST—CUDDALORE.

Alteration in Character of Light.

No. 444 (second publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 49 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (This office No. 403 of 1921.)

Subject.—The alteration in the character of the light at Cuddalore will take place on or after the 1st February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $11^{\circ} 43' N.$

Longitude $79^{\circ} 46' E.$

Character of Light.—White Flashing Acetylene Light, giving a single quick flash every three seconds, i.e., flash $\frac{3}{10}$, second, darkness $2\frac{7}{10}$, seconds.

Description of Tower.—White Tower over square white house.

Height and Range.—About 65 feet above High Water Range 12 miles.

Arc of illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

" 71, Madras to Calimere Point.

" 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot, 1910, page 210, List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 553.

Remarks.—Nil.

Authority.—Port Officer, Cuddalore.

GULF OF ADEN.

CAUTION—*Obstruction to navigation*.

No. 445 (second publication).—

Subject.—The master of the SS. "Gharinda" reports having struck a light obstruction in the following position.

Position.—Lat. $13^{\circ} 24' N.$, long. $50^{\circ} 35' E.$ (By stellar observation.)

Caution.—Mariners are hereby warned.

Charts affected.—No. 6a, Gulf of Aden, eastern portion.

" 1012, Arabian sea.

Authority.—Marine Superintendent, B. I. S. N. Co., Calcutta, letter dated 17th November 1921.

AUSTRALIA—EAST COAST.

Moreton bay—*Removal of south-west Spit buoy*.

No. 446 (second publication).—

The Portmaster, Brisbane, has given notice No. 16 of 1921 that the red buoy marking the South-west Spit, Central Banks, Moreton Bay, will be removed on the 14th November 1921, and will not be re-established.

Charts affected.—Nos. 1670 A and B, 1029 and 1068; Australia Pilot, vol. 3, page 98. Queensland Sailing Directions, pages 86 and 89.

EASTERN ARCHIPELAGO—NEW GUINEA, NORTH-WEST COAST, SELE STRAIT.

Doom island—*Light established*.

No. 447 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1750 of 1921), are republished:—

Position.—On the outer end of a pier which extends 44 yards ($40^{m} 2^f$) from the eastern extremity of Doom island.

Lat. $0^{\circ} 53' 20'' S.$, long. $131^{\circ} 14' 00'' E.$

Abridged description.—Lt. F. Red, 7 ft., vis. 6 m.

Characteristics:

Character.—Fixed red.

Elevation.—7 feet (2^m1).

Visibility.—6 miles.

Remarks.—The light is obscured to the north-westward when bearing less than 143°.

Charts affected.—No. 1416, Sele strait.

" 3745, Kabu islands to Tanjong Kasbi.

Publications.—List of Lights, Part VI, 1921, No. 2773a.

Eastern Archipelago Pilot, Part III, 1911, page 271.

Authority.—Hague Notice No. 1553 of 1921. (H. 5380-21.)

PHILIPPINE ISLANDS—TANON STRAIT, NEGROS ISLAND.

Guifulugan—Light established.

No. 448 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1755 of 1921), are republished:—

Position.—Lat. 10° 07' 18" N., long. 123° 16' 18" E.

Abridged description.—Lt. F. Red, 36 ft., vis. 7 m.

Characteristics:

Character.—Fixed red.

Elevation.—36 feet (11^m0).

Visibility.—7 miles.

Structure.—White concrete beacon, 30 feet (9^m1) in height.

Charts affected.—No. 2578, Eastern part of the Sulu or Mindoro sea.

" 943, Molucca passage to Manila.

Publications.—List of Lights, Part VI, 1921, No. 1172a.

Eastern Archipelago Pilot, Part I, 1911, page 378.

Authority.—U. S. A. Hyd. Office Notice No. 3276 of 1921. (H. 5880-21.)

INDIA, WEST COAST—MALABAR COAST.

Mangalore Harbour—Caution.

No. 449 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1762 of 1921), are republished:—

Position.—Lat. 12° 51' N., long. 74° 50' E. (approx.).

Caution.—Considerable changes are reported to have taken place in the appearance and aspect of Mangalore since the date of the survey, and the lighthouse is difficult to distinguish. Caution is therefore necessary when fixing the ship's position or navigating in the vicinity.

Note.—A note to the above effect is to be inserted on the chart.

Chart affected.—No. 3267, Plan of Mangalore harbour.

Publication.—W.C. India Pilot, 1919, page 155.

Authority.—H.M.S. *Odin*, Remark Book, 1920. (H. 8364-20.)

JAPAN—HOKUSHŪ, NORTH COAST.

Sankeushi Misaki—Decreased Depths reported in vicinity.

No. 450 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1776 of 1921), are republished:—

Position.—Sankeushi misaki, lat. $44^{\circ} 53'$ N., long. $142^{\circ} 37'$ E. (*approx.*).

Caution.—Less water than charted is reported to exist between the rock, marked "P.D." on the charts, situated in lat. $44^{\circ} 52'$ N., long. $142^{\circ} 41'$ E. (*approx.*), and Sankeushi misaki to the northward.

Note.—A note "*Shoaler water reported (1921)*" is to be inserted in the above vicinity on the charts.

Charts affected.—No. 3600, Plan of Yeshashi anchorage.

,, 452, Hokushū island and La Pérouse strait.

Publication.—Japan Pilot, 1914, page 746.

Authority.—Tokyo Notice No. 268 of 1921. (H. 5863-21.)

JAPAN—SHIMONOSEKI KAIKYO.

Chuo Suido—Existence of Wreck.

No. 451 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1777 of 1921), are republished:—

Position.—At a distance of 1·20 miles, 312° , from He saki lighthouse. Lat. $33^{\circ} 58'$ N., long. $131^{\circ} 00'$ E. (*approx.*).

Description.—Sunken wreck of a three-masted sailing vessel.

Charts affected.—No. 1578, Shimonoseki kaikyo.

,, 532, Approach to Shimonoseki kaikyo.

,, 3225, Shimonoseki kaikyo to Maruyama zaki.

Authority.—Tokyo Notice No. 297 of 1921. (H. 6026-21.)

NORTH PACIFIC OCEAN.

Greenwich Islands—Reported to lie further eastward.

No. 452 (*second publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1784 of 1921), are republished:—

Position on charts.—Lat. $1^{\circ} 04'$ N., long. $154^{\circ} 43'$ E. (*approx.*).

Details.—The group of islands known as Greenwich islands are reported to lie about 9 miles further eastward than charted.

Note.—A note to the above effect is to be inserted on the charts.

Charts affected.—No. 2766, North-east coast of New Guinea, &c.

,, 781, Pacific ocean—north-west sheet.

Publication.—Pacific Islands Pilot, Vol. I, 1921, page 608.

Authority.—Tokyo Notice No. 275 of 1921. (H. 5866-21.)

The 12th November 1921.

JAVA, NORTH COAST.

Tanjong Priok Harbour Entrance—Alteration in Character of Light.

No. 417 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1620 of 1921), are re-published :—

Position.—On outer extremity of eastern breakwater.

Lat. $6^{\circ} 05'$ S., long. $106^{\circ} 53'$ E. (*approx.*)

New abridged description.—Lt. Occ. W. R. 42 ft., vis. 11 m.

Alteration.—The occulting white light has been replaced by an occulting white light with red sector.

Remarks.—The red sector covers the eastern portion of the harbour.

Note.—The sectors are not to be shown on the charts.

Charts affected.—No. 933, Batavia roads.

„ 2056, Sunda strait.

„ 1653, Island of Java—western portion.

Publications.—List of Lights, Part VI, 1921, No. 885.

Eastern Archipelago Pilot, Part II, 1913, page 92.

Authority.—Hague Notice No. 1435 of 1921. (H. 4944/21).

GULF OF OMAN—ARABIAN COAST.

Maskat Island—Light to be expunged from the Charts.

No. 418 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1634 of 1921), are re-published :—

Position.—On point situated at a distance of about 2 cables south-eastward of Ras Maskat.

Lat. $23^{\circ} 38'$ N., long. $58^{\circ} 36'$ E. (*approx.*).

Details.—The flashing white light shown on the charts in the above position, which is no longer exhibited, is to be expunged; the note “*Lt. Ho. (disused)*” is to be substituted on the large scale chart No. 2869.

Charts affected.—No. 2869, Maskat and Al Matrah.

„ 10c, Maskat to Ras Sukra.

„ 38, Maskat to Karachi.

„ 2837a, Persian gulf—eastern sheet.

Publications.—List of Lights, Part VI, 1921, No. 290.

Persian Gulf Pilot, 1915, page 43; Supplement No. 6 1921.

Authority.—Hydrographic Department. (H. 4408/21).

INDIAN OCEAN—CEYLON.

Colombo W/T Station—Areas where Communication is ineffective or unreliable.

No. 419 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1635 of 1921), are re-published—

Position.—Colombo W/T station, lat. $6^{\circ} 55'$ N., long. $79^{\circ} 53'$ E. (*approx.*).

Call signal.—VPB.

Details.—The normal range of Colombo W/T station is 400 miles by day and 800 miles by night; but when conditions are favourable these distances are considerably exceeded.

There are, however, areas within the normal range of the station in which, for reasons not yet precisely determined, it is not feasible to ensure proper communication.

The following are the areas in which communication is not possible at any time—

(1) A line joining the following approximate positions—

(a)	Lat.	5 20 N.,	long.	79 40 E.
(b)	"	10 40 N.,	"	81 00 E.
(c)	"	12 00 N.,	"	81 30 E.
(d)	"	11 00 N.,	"	83 35 E.
(e)	"	6 20 N.,	"	82 10 E.

and thence to position (a).

(2) A line joining the following approximate positions—

(a)	Lat. 14 10 N.,	long. 73 40 E.
(b)	„ 8 00 N.,	76 40 E.
(c)	„ 7 00 N.,	76 30 E.
(d)	„ 8 20 N.,	70 00 E.
(e)	„ 9 40 N.,	70 20 E.

and thence to position (α).

The following are the areas in which indifferent communication is only possible at any time—

(3) A line joining the following approximate positions—

(a) Lat. 1° 20' N., long. 83° 00' E.
 (b) " 8° 40' N., " 83° 45' E.
 (c) " 11° 40' N., " 90° 05' E.
 (d) " 0° 35' N., " 90° 10' E.
 and thence to position (a).

and thence to position (ii).

(4) A line joining the following approximate positions—

(a) Lat. 9° 40' N., long. 70° 20' E.
 (b) " 10° 35' N., " 64° 15' E.
 (c) " 9° 20' N., " 64° 00' E.
 (d) " 8° 20' N., " 70° 00' E.
 and thence to position (a).

East of India Pilot, 1921, page

Publications.—West Coast of India Pilot, 1921, page 99.

Bay of Bengal Pilot, 1910, page 102; Supplement No. 5, 1920.

Authority.—Colombo Port Commission. (H. 4938/21.)

WESTERN AUSTRALIA, NORTH-WEST COAST—KING SOUND.

FitzRoy River Approach—Obstruction reported.

No. 420 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1637 of 1921), are re-published:—

Position.—At a distance of about $2\frac{1}{2}$ miles north-westward of the northern end of the Outer Rip shoal.

Lat. $17^{\circ} 03' 30''$ S., long. $123^{\circ} 28' 30''$ E.

Description.—A submerged obstruction over which there is a depth of about $2\frac{1}{2}$ fathoms (4 m 6).

Note.—The above depth is to be encircled by a danger line on the charts and marked with the note "*Obstruction repd. (1921)*".

Charts affected.—No. 1052, Hall point to Cape Bertholet, including King sound, etc.

" 1048, Buccaneer archipelago to Bedout island.

" 475, North-west coast of Australia.

Publication.—Australia Pilot, Vol. V, 1921, page 235.

Authority.—Fremantle Notice dated 8th June 1921. (H. 5134-21.)

PHILIPPINE ISLANDS.

Basilan Strait—Shoal to be expunged from Charts.

No. 421 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1652 of 1921), are republished:—

Position.—At a distance of about 3 miles southward of the southern end of Santa Cruz (Great) island.

Lat. $6^{\circ} 48'$ N., long. $122^{\circ} 04'$ E. (*approx.*).

Details.—The shoal over which a depth of less than 4 fathoms (7 m 3) was reported in the year 1899 is to be expunged from the charts.

Charts affected.—No. 961, Basilan strait.

" 928, Sulu archipelago.

" 2576, Sulu Archipelago and north-east coast of Borneo.

" 943, Molucca passage to Manila.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 245.

Authority.—U. S. A. Government Chart. (H. 4427-21.)

BAY OF BENGAL—NICOBAR ISLANDS, ST. GEORGE'S CHANNEL.

Kondul and Mencha? Islands—Shoal Water reported westward of.

No. 422 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1666 of 1921), are republished:—

Position.—(a) Kondul island, lat. $7^{\circ} 13'$ N., long. $93^{\circ} 42'$ E. (*approx.*).
(b) Menchal island, lat. $7^{\circ} 24'$ N., long. $93^{\circ} 45'$ E.

Caution.—(a) A depth of 6 fathoms (11 m 0) has been obtained about $1\frac{1}{2}$ miles westward of Kondul island, and shoal water appeared to extend over a considerable area in this locality.

A cautionary note "*6 fms. repd. probably less water (1921)*" is to be inserted to the westward of Kondul island, on the plan of St. George's channel on chart No. 840.

(b) Depths of $6\frac{1}{2}$ fathoms (11 m 9) have been obtained between Menchal and Little Nicobar islands, where 21 and 30 fathoms are shown on the chart; shoal water is reported to extend across the channel between these two islands.

A cautionary note "*Shoal water repd. (1921)*" is to be inserted on the chart.

Charts affected.—No. 840, Nicobar islands, with plan.

" 830, Bassein river to Pulo Penang.

Publication.—Bay of Bengal Pilot, 1910, pages 377, 378, 379.

Authority.—Director, Royal Indian Marine. (H. 5452-21.)

RED SEA—SUEZ BAY.

Suez Canal Entrance and approach—Corrections to Chart No. 734 with regard to Lighting and Buoyage.

No. 423 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1675 of 1921), are republished:—

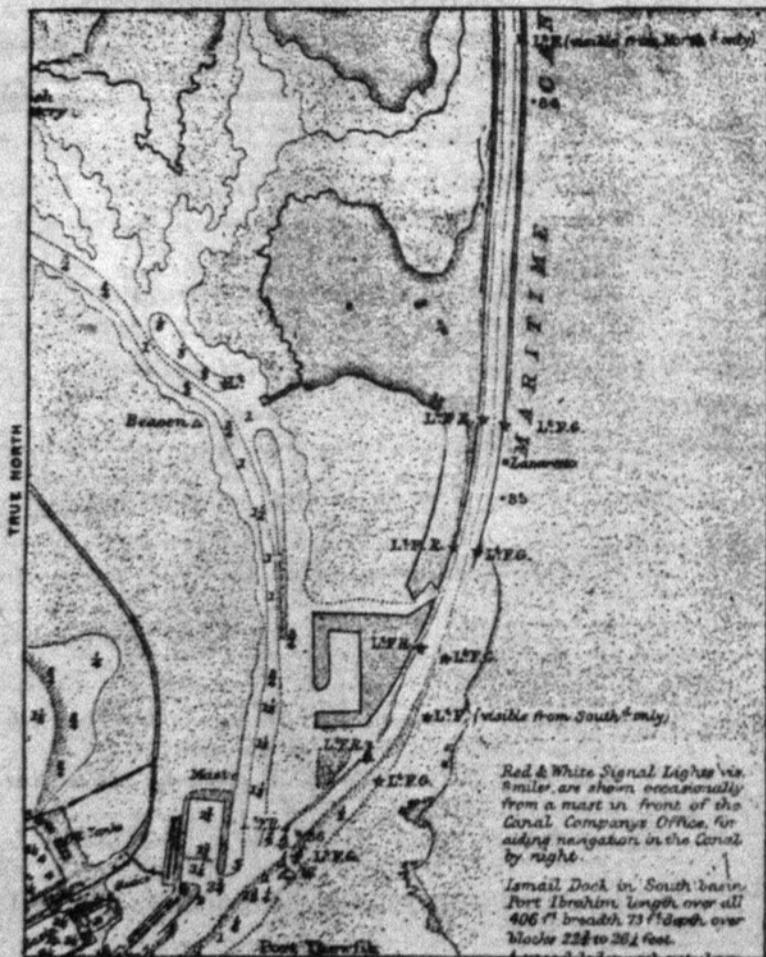
Position.—Kalah Kebireh beacon, lat. $29^{\circ} 55'$ N., long. $32^{\circ} 32'$ E
(approx.).

Details.—The accompanying reproduction of portions of chart No. 734 shows the necessary corrections to that chart with regard to lights and light-buoys in the southern entrance to Suez Canal and the positions of light-buoys in the dredged channel eastward of Kal ah Kebireh.

Chart affected.—No.734, Suez bay.

Publication.—Red Sea, &c., Pilot, 1921, pages 75, 76.

Authority.—Suez Canal Company. (*H.* 5301-21.)



JAPAN, INLAND SEA—KURUSIMA NO SETO.

Kono Se Light—Alteration in Character.

No. 424 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1682 of 1921), are republished:—

Position.—Lat. $34^{\circ} 08'$ N., long $132^{\circ} 59'$ E. (*approx.*)

New abridged description.—Lt. Gp. Fl. (2) *W. R. ev.* 6 sec., 27 ft., vis. 10 m (U).

Alteration.—The character of the light has been altered from fixed white and red to *group flashing*, with *white* and *red* sectors, showing *two flashes every six seconds*, thus:

<i>Two flashes</i>	<i>eclipse</i>
2 sec.	4 sec.

Charts affected.—No. 131, Kurusima no seto.

“ 83, Gogo shima to Miyo shima.

“ 3325, Channels between Neko seto and Mekari seto.

“ 2875, Naikai (Seto uchi) or Inland sea.

Publications.—List of Lights, Part VI, 1921, No. 1959.

Japan Pilot, 1914, pages 332, 333.

Authority.—Tokyo, Department of Communications Notices Nos. 1181 and 1280 of 1921. (H. 5083-21.)

JAPAN—KAZAN OR VOLCANO ISLANDS.

Two Jima (Sulphur Island), East Coast—Rocks and Breakers reported off.

No. 425 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1683 of 1921), are republished:—

Position.—Higashi iwa, lat. $24^{\circ} 47'$ N., long. $141^{\circ} 23'$ E. (*approx.*)

Details.—Breakers and rocks above water have been observed extending from Higashi iwa to Two jima. Breakers have also been observed extending for a short distance from a point on the south-eastern side of the island about one mile southward of Furu yama summit. Mariners are warned accordingly.

Note.—Notes with regard to the breakers and rocks reported are to be inserted on the chart in the localities mentioned and marked with the year date “1921.”

Chart affected.—No. 1100, Plan of Two jima.

Publication.—Japan Pilot, 1914, page 38.

Authority.—U. S. Hyd. Office Notice No. 2964 of 1920. (H. 6551-20.)

CHINA SEA—SINGAPORE STRAIT.

(1) *Old Strait—Lights to be established.*

(2) *Calder Harbour—Existence of rock.*

(3) *Red Cliff Bank—Shoal eastward of.*

No. 426 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1689 of 1921), are republished:—

(1) **Old Strait.**

Date of establishment.—Shortly.

(a) *Position.*—Off the south-eastern extremity of Pulo Ketam.
Lat. $1^{\circ} 23' 52''$ N., long. $103^{\circ} 57' 25''$ E.

(b) *Position.*—Off the western extremity of Pulo Ubin.
Lat. $1^{\circ} 25' 18''$ N., long. $103^{\circ} 55' 30''$ E.

(c) *Position*.—At a distance of about half a mile eastward of the south-eastern extremity of Pulo Khatib Bongsu.

Lat. $1^{\circ} 26' 20''$ N., long. $103^{\circ} 52' 22''$ E.

(d) *Position*.—On the northern side of the strait, between Sungi Lunchu and Sungi Sinibong.

Lat. $1^{\circ} 28' 33''$ N., long. $103^{\circ} 49' 38''$ E.

Abridged descriptions.—Lt. Fl. ev. 3 sec. 6 ft. (U), in each case.

Character.—In each case *flashing white every three seconds*, thus :

Flash	eclipse.
1 sec.	2 sec.

Elevation.—6 feet ($1^{\text{m}}8$).

Structures.—Iron framework.

Remarks.—The lights will be unwatched.

Note.—No further Notice will be given.

(2) Calder Harbour.

Position.—At a distance of 0·98 of a mile, 282° , from the beacon on Johor hill.

Lat. $1^{\circ} 23'$ N., long. $104^{\circ} 05'$ E. (*approx.*).

Depth.— $2\frac{1}{2}$ fathoms ($4^{\text{m}}6$).

(3) Red Cliff Bank.

Position.—At a distance of 3·80 miles, 093° , from Tanah Merah Besar summit.

Lat. $1^{\circ} 21'$ N., long. $104^{\circ} 02'$ E. (*approx.*).

Depth.— $2\frac{1}{2}$ fathoms ($5^{\text{m}}0$).

Remarks.—From the above position, which is the easternmost point of a triangular-shaped shoal, depths of 3 fathoms ($5^{\text{m}}5$) or less extend for distances of about 4 cables in north-westerly and south-westerly directions.

Charts affected.—No. 2403, Singapore strait.

„ 2757, Banka strait to Singapore. (2) and (3).

„ 3543, Approaches to Singapore. (2) and (3).

„ 1355, Malacca strait. (2) and (3).

Publications.—List of Lights, Part VI, 1921, No. 791 (Remarks).

China Sea Pilot, Vol. I, 1916, pages 286, 289, 300 to 302.

Authority.—Hydrographic Department. (H. 5254, 5457 & 5458-21.)

INDIA, WEST COAST—BOMBAY HARBOUR.

Buoy Marking western limit of Spoil Ground Replaced by an "Aga" Gas Buoy.

No. 427 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 118M. of 1921), are republished :—

Date of exhibition.—25th October 1921.

Position.—At a distance of $6\frac{1}{4}$ cables 211° from Karanja Beacon at the Western limit of Spoil Ground, former buoy has now been removed.

Abridged description.—Lt. Fl. Red. ev. 7 sec. vis. 6m.

Description.—A conical buoy painted red exhibiting a red light thus :—

Light	Eclipse.
1 Sec.	6 Sec.

Visibility.—6 Miles in clear weather.

Remarks.—The buoy is an "Aga" Standard design.

Variation.—Nil.

Charts affected.—No 2621, Bombay Harbour.

„ 655, Port of Bombay.

„ 737, Arnala Island to Kundari Island.

Publications.—West Coast of India Pilot, 1919, page 222.

Indian List of Lights, 40th issue, 1921, page 22.

Authority.—The Port Officer, Bombay, dated 25th October 1921.

PERSIAN GULF.

Sha't-al-Arab—Light Vessel temporarily replaced by a light buoy.

No. 428 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 119M. of 1921), are republished:—

Former Notice No. 108M. of 1921. (*This Office No. 394 of 1921.*)

Position.—Lat. $29^{\circ} 44\frac{1}{2}'$ N., long. $48^{\circ} 48\frac{1}{2}'$ E.

Details.—A Light Buoy, painted red, exhibiting a fixed white light has been placed in the position of the Shatt-al-Arab Light Vessel, which was notified to be temporarily withdrawn for repairs on the 25th October 1921.

Charts temporarily affected.—No. 1253, Shatt-al-Arab, Outer Bar to Fao.

„ 1235, Mouth of the Euphrates.

Authority.—The Commanding Officer, R. I. M. S. "Nearchus" Telegram dated 25th October 1921.

INDIA, WEST COAST—KARACHI HARBOUR.

Manora Point—Breakwater light re-exhibited.

No. 429 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 120M. of 1921), are republished:—

Former Notice—No. 112-M. of 1921. (*This Office No. 402 of 1921.*)

Position.—At the end of the Manora breakwater.

Lat. $24^{\circ} 47'$ N., long. $66^{\circ} 59'$ E.

Details.—The white occulting light shown from the end of the Manora breakwater which was reported temporarily extinguished, has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.

„ 41, Cape Monze to Kediwari Mouth.

„ 39, Sind and Kutch Coasts.

„ 38, Maskat to Karachi.

„ 826, Karachi to Vengurla.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, WEST COAST.

Karachi Harbour—Outer Gas Buoy Light re-exhibited.

No. 430 (third publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 121-M. of 1921), are republished:—

Former Notice—No. 81-M. of 1921. (*This Office No. 181 of 1921.*)

Position.—At a distance of about $3\frac{1}{2}$ Cables eastward of the light on the end of the Manora Breakwater.

Lat. $24^{\circ} 47' N.$, long. $67^{\circ} 59' E.$

Details.—The occulting red light, exhibited from the Outer red Conical buoy, which was reported not burning has been re-exhibited.

Charts which were temporarily affected.—No. 40, Karachi Harbour.
" 41, Cape Monze to Kediwari Mouth.

Authority.—The Port Officer, Karachi, Telegram, dated 28th October 1921.

INDIA, SOUTH COAST—GULF OF MANAR.

No. 431 (third publication).—

Caution. Tuticorin Roadstead—Danger to navigation.

Former Notice.—No. 370 of 1921.

Subject.—The Marine Boiler reported to have been sunk in the following position has not been found and therefore may constitute a danger to navigation.

Position.—Hare island light N. $86^{\circ} W.$ (True).
Church island church N. $25^{\circ} W.$ (True).

Caution.—Mariners are hereby warned.

Charts affected.—No. 68a, Palk strait and Gulf of Manar, Sheet 1.
" 67, Tuticorin Roadstead and harbour.

Authority.—Madras Notice No. 43, dated 21st October 1921.

BAY OF BENGAL—BURMA COAST.

No. 432 (third publication).—

Caution. Report of derelict Brigantine "Hydrobandooli."

Subject.—Brigantine "Hydrobandooli" reported abandoned off Diamond Island on 8th November 1921 and drifting in a N. W. direction.

The Master of the SS. "Shahjehan" reports having sighted on the 10th November 1921 the derelict "Hydrobandooli" mastless and rudderless in the following position:—

Position.—Lat. $16^{\circ} 17' N.$, long. $93^{\circ} 40' E.$

Subject.—On the 11th November 1921 derelict was sighted in the following position:—

Position.—Lat. $16^{\circ} 27' N.$, long. $93^{\circ} 17' E.$

Caution.—Mariners are hereby warned that this derelict constitutes a danger to Shipping.

Charts affected.—No. 829, Cocanada to Bassein river.
" 70, Bay of Bengal.

Authority.—Principal Port Officer, Burma, Rangoon, telegrams dated 8th, 10th and 12th November 1921.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,

Port Officer of Calcutta.



The Calcutta Gazette

WEDNESDAY, DECEMBER 14, 1921.

APPENDIX.

NOTICES TO MARINERS.

The following Notices are republished for general information.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta.

A. MARR,
*Secretary to the Government of Bengal,
Marine Department.*

CALCUTTA, the 3rd December 1921.

GULF OF SIAM.

Aotinau (Manao) Bay—Caution with regard to Intended Aeroplane Target Practice.

No. 464 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1789 of 1921), are republished:—

Date of commencement.—1st November 1921.

Position.—North Horn, lat. $11^{\circ} 47'$ N., long. $99^{\circ} 47'$ E. (*approx.*).

Caution.—Notice is given that from the above date, target practice from Aeroplanes will take place in the vicinity of Aotinau bay and approaches. Vessels are warned not to enter the undermentioned area between sunrise and sunset whilst the practice is being carried out:—

Limits of danger area:—

(a) *On the North.*—By a line drawn from North Horn in a 071° direction for a distance of 7·33 miles.

(b) *On the South.*—By a line drawn from South Horn in a 135° direction for a distance of 6·75 miles.

(c) *On the East.*—By a line joining the eastern extremities of limits (a) and (b).

(d) *On the West.*—By a line joining North and South Horns.

Note.—Further Notice will be given when the target practice has been completed.

Charts temporarily affected.—No. 2719, Lem Tane to Ko Ta kut,
,, 2414, Gulf of Siam.

Publication.—China Sea Pilot, Vol. III, 1912, page 133.

Authority.—Bangkok Notice No. 157 of 1921. (H. 5518-21.)

BAY OF BENGAL—BURMA.

Akyab Harbour—Caution with regard to Depths.

No. 465 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1814 of 1921), are republished:—

Position.—Savage island, lat. $20^{\circ} 05'$ N., long. $92^{\circ} 54'$ E. (*approx.*).

Caution.—Akyab harbour is reported to have shoaled considerably.
(A note to this effect is to be inserted on the charts.)

Charts affected.—No. 1884, Arakan river. Akyab.

,, 1369, Mayu river to Kyauk Pyu harbour.

Publication.—Bay of Bengal Pilot, 1910, pages 341, 342.

Authority.—The Director, Royal Indian Marine. (H. 6113-21.).

PERSIAN GULF.

Shatt al Arab Light-Vessel—Replaced on her station.

No. 466 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 132M. of 1921), are republished:—

Former Notice.—No. 119M. of 1921. (*This Office No. 428 of 1921.*)

Position.—Lat. $29^{\circ} 44\frac{1}{2}'$ N., long. $48^{\circ} 48\frac{1}{2}'$ E.

Details.—The Shatt al Arab Light-Vessel, which was temporarily withdrawn for repairs and replaced by a light buoy, was stationed in her position on the 13th November 1921.

Charts which were temporarily affected.—No. 1253, Shatt al Arab, Outer Bar to Fao.

,, 1235, Mouth of the Euphrates.

Authority.—The Commanding Officer, R. I. M. S. “Nearchus” Telegram, dated 13th November 1921.

BAY OF BENGAL, BURMA—BASSEIN RIVER ENTRANCE.

Diamond Island—Non-existence of wreck.

No. 467 (*first publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 133M. of 1921), are republished:—

Former Notice.—No. 29M. of 1921. (*This Office No. 126 of 1921.*)

Position.—At a distance of about 5 miles, 136° , from Diamond island.
Lat. $15^{\circ} 48\frac{1}{2}'$ N., long. $94^{\circ} 20\frac{1}{2}'$ E.

Details.—The sunken wreck of a small native craft, in the above position has disappeared.

Charts affected.—No. 834, Bassein river and approaches.
„ 3772, Calventuras to Bassein river.
„ 823, Koronge Island to White point.
„ 829, Cocanada to Bassein river.
„ 830, Bassein river to Pulo Penang.

Authority.—The Principal Port Officer, Burma, dated 8th of November 1921.

BAY OF BENGAL—CHITTAGONG COAST.

South Patches light-vessel—*To be temporarily replaced by a country brig.*
No. 468-I (first publication).—

Subject.—The South Patches light-vessel will be withdrawn from her station on the 1st January 1922 and replaced early in February 1922.

During her absence a 54-ton country brig having "S.P." painted in large letters on each side will be moored in the same position.

By day—She will carry a black ball on her main topmost head.

By night—She will exhibit two ordinary ship's riding lights, in a horizontal position, one at each foretop sail yardarm and will also burn a flare every half hour.

Position.—Lat. $21^{\circ} 29\frac{1}{2}'$ N., long. $91^{\circ} 37\frac{1}{2}'$ E.

Charts affected.—No. 829, Cocanada to Bassein river,
„ 859, Matla river to Elephant Point
„ 70, Bay of Bengal.

Publications.—List of Lights, Part VI, 1921, No. 630.

Bay of Bengal Pilot, 1910, page 329; Supplement No. 5 of 1920.

Authority.—Port Officer, Chittagong, Notice, dated 30th November 1921.

The 25th November 1921.

INDIA. EAST COAST—NEGAPATAM.

Alteration in Character of Light.

No. 453 (second publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 51 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Negapatam will take place on or after the 15th February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $10^{\circ} 45'$ N.

Longitude $79^{\circ} 51'$ E.

Character of Light.—White Flashing Acetylene Light, giving two quick flashes every six seconds, i.e., flash $\frac{1}{6}$ second, short darkness $1 \frac{1}{6}$ second, long darkness 4 seconds.

Description of Tower.—Masonry tower Painted White.

Height and Range.—About 80 feet above high water. Range 14 miles,

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

“ 71, Madras to Calimere Point.

“ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 203.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 551.

Authority.—Port Officer, Negapatam.

INDIA, EAST COAST—BIMLIPATAM.

Alteration in Character of Light.

No. 454 (second publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 52 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Bimlipatam will take place on or after the 1st April 1922, from which date the present occulting light will be discontinued.

Position.—Latitude 17° 53' N.

Longitude 83° 27' E.

Character of Light.—White Flashing Acetylene Light, giving one single quick flash every 3 seconds, i.e., $\frac{3}{10}$ flash and $2\frac{7}{10}$ darkness.

Description of Tower.—Masonry Tower.

Height and Range.—About 35 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal,

“ 829, Cocanada to Bassein River.

“ 1424, Binlipatam to Gopalpore.

“ 1711, Narsapur Point to Bimlipatam.

Publications.—Bay of Bengal Pilot of 1910, page 252.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 575.

Authority.—Port Officer, Vizagapatam.

INDIA, EAST COAST—PAMBAN.

Alteration in Character of Light.

No. 455 (second publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 53 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the Light at Pamban will take place on or after the 1st March 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $9^{\circ} 17' N.$

Longitude $79^{\circ} 13' E.$

Character of Light.—White flashing acetylene Light giving three quick flashes every nine seconds, i.e., $\frac{3}{10}$ flash, $1\frac{5}{6}$ short darkness and $5\frac{1}{6}$ long darkness.

Description of Tower.—Masonry Tower painted white.

Height and Range.—About 97 feet above high water. Range 14 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

.. 68a, Palk Strait and Gulf of Manar.

.. 69, Gulf of Manar—Pamban Pass.

.. 3581, Approaches to Pamban Pass.

.. 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 182.

List of Lighthouses and Light vessels in British India.

List of Lights, Part VI, 1921, No. 542.

Authority.—Port Officer, Pamban.

INDIA, EAST COAST—MASULIPATAM.

Alteration in Character of Light.

No. 456 (second publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 54 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (This Office No. 403 of 1921.)

Subject.—The alteration in the character of the light at Masulipatam will take place on or after the 15th March 1922 from which date the present occulting light will be discontinued.

Position.—Latitude $16^{\circ} 10' N.$

Longitude $81^{\circ} 11' E.$

Character of Light.—White flashing Acetylene Light, giving three quick flashes every 9 seconds, i.e., $\frac{3}{10}$ flash, $1\frac{5}{6}$ short darkness and $5\frac{1}{6}$ long darkness.

Description of Tower.—White Masonry tower.

Height and Range.—About 33 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

.. 828, Cape Comorin to Cocanada.

.. 1894, Ramapatnam to Narsapur Point.

Publications.—Bay of Bengal Pilot of 1910, page 273.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 571.

Authority.—Port Officer, Cocanada.

GULF OF ADEN—JUBITI NORTHERN APPROACH.

Gulf of Tajura—Information with regard to Buoyage.

No. 457 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 127M. of 1921), are republished :—

(1) Mashah Island Buoy re-established.

Former Notice.—No. 106M. of 1921. (*This office No. 383 of 1921.*)

Position.—At a distance of about $2\frac{1}{2}$ miles 271° from the Mashah Island Light-house and about $\frac{1}{4}$ of a mile, 185° from its former charted position.

Lat. $11^{\circ} 43' N.$, long. $43^{\circ} 10\frac{1}{2}' E.$

Details.—The black buoy which was previously reported as missing, *vide* N to M quoted above, has now been replaced in the above position.

Remarks.—This buoy is now useless as an aid to navigation and if relied on will lead vessels into difficulties.

(2) Jubiti Bay—Buoy removed.

Position.—About 2 Cables Northward of Plateau du Heron.

Lat. $11^{\circ} 36' 50'' N.$, long. $43^{\circ} 09' 35'' E.$

Details.—The white can buoy in the above position has been removed or has sunk.

Chart affected.—No. 253, Jebel Jan to Shab Kulangarit with Plan.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, pages 524-526.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—BERBERA.

Shaab Pier Light extinguished.

Caution with regard to approaching Berbera.

No. 458 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 128M. of 1921), are republished :—

(1) Shaab Pier Light extinguished.

Position.—On Shaab Pier head.

Lat. $10^{\circ} 26\frac{1}{2}' N.$, long. $45^{\circ} 1\frac{1}{2}' E.$

Details.—The fixed white and green light visible 2 miles, exhibited from the Shaab Pier head is no longer exhibiting and should be expunged from the publications.

(2) Caution with regard to approaching Berbera.

Position.—Of the fixed white light near the old light-house.

Lat. $10^{\circ} 25' N.$, long. $44^{\circ} 59' E.$

Details.—Great care is necessary for a stranger approaching Berbera at night as owing to the frequent dust storms the visibility of the fixed white light from a mast near the old light-house is not to be depended on, further more during the trading season (from October to March) dhows frequently anchor close in shore in the vicinity of the light-house making it very difficult at times to distinguish between their anchor lights and the fixed light.

Chart affected.—No. 3530, Berbera.

Publications.—List of Lights, Part VI, 1921, No. 257.

Indian List of Lights, 40th issue, 1921, No. 2.

Red Sea and Gulf of Aden Pilot, 1921, page 542.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—ZEILA ROADSTEAD AND APPROACHES.

Caution with regard to Discoloured water.

No. 459 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 129M. of 1921), are republished:—

Position.—Aibat island beacon, Lat. $11^{\circ} 31'$ N., long. $43^{\circ} 28\frac{1}{2}'$ E.

Caution.—Discoloured water is reported to exist westward of a line drawn from the white beacon on Aibat island, in a direction 133° (S. 44° E. Mag.) to the southern point of Sea Gull shoal.

The water is very much discoloured making it impossible to distinguish between the deep and shoal water, as may easily be done to seaward and in the most of the adjacent bays.

Variation.— 3° W.

Charts affected.—No. 919, Plan of Zeila roadstead.

“ 253, Jebel Jan to Shaab Kulangarit.

“ 8e, Red Sea Sheet-V.

“ 6b, Gulf of Aden, Western portion.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 532.

Authority.—The Port Officer, Aden, dated 19th October 1921.

RED SEA.

Telegraph Cable Buoys removed.

No. 460 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 130M. of 1921), are republished:—

Former Notice.—No. 115-M. of 1921. (*This office No. 413 of 1921.*)

Positions.—(1) Lat. $29^{\circ} 25' 00''$ N.

Long. $32^{\circ} 33' 30''$ E.

(2) Lat. $29^{\circ} 22' 00''$ N.

Long. $32^{\circ} 39' 30''$ E.

(3) Lat. $28^{\circ} 32' 30''$ N.

Long. $33^{\circ} 04' 00''$ E.

(4) Lat. $28^{\circ} 29' 00''$ N.

Long. $33^{\circ} 13' 30''$ E.

(5) Lat. $28^{\circ} 16' 00''$ N.

Long. $33^{\circ} 31' 00''$ E.

(6) Lat. $28^{\circ} 04' 00''$ N.

Long. $33^{\circ} 37' 00''$ E.

(7) Lat. $27^{\circ} 56' 30''$ N.

Long. $33^{\circ} 45' 00''$ E.

Details.—The buoys in the above mentioned positions which were temporarily laid in connection with the telegraph cable work in the Red Sea, have been withdrawn.

Charts which were temporarily affected.—No. 2838, Strait of Jubal.

„ 757, Gulf of Suez.

„ 8a, Red Sea—Sheet I.

„ 2523, Red Sea.

Authority.—The Eastern Telegraph Company, Bombay, dated 24th October 1921.

BAY OF BENGAL. BURMA—BASSEIN RIVER ENTRANCE.

Diamond island—Baroni rock buoy.

No. 461 (second publication).—

Former Notice.—No. 127 of 1921.

Subject.—The lighted gas buoy marking the Baroni rock has been replaced by an unlighted spherical buoy painted black with a white horizontal band.

Charts affected.—No. 834, Bassein river and approaches
„ 3772, Calventuras to Bassein river.
„ 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447; Supplement No. 5 of 1920.

Authority.—Port Officer, Bassein, Burma, Notice, dated 17th November 1921.

BAY OF BENGAL—BURMA COAST.

Bassein river entrance—Buoy established.

No. 462 (second publication).—

Subject.—A black can buoy has been laid in 4 fathoms L. W. O. S. with Diamond island flagstaff 260°, distant 4 cables.

Position.—Lat. 15° 51' 50" N., long. 94° 17' 20" E.

Charts affected.—No. 834, Bassein river and approaches.
„ 3772, Calventuras to Bassein river.
„ 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447.

Authority.—Port Officer, Bassein, Burma, Notice, dated 18th November 1921.

BAY OF BENGAL—BURMA COAST.

Derelict Brigantine "Adrosbandooli" salved.

No. 463 (second publication).—

Former Notice.—No. 432 of 1921.

Subject.—The derelict Brigantine "Adrosbandooli" reported in the above Notice as "Hydrobandooli" has since been salved and is no longer a danger to shipping.

Authority.—Principal Port Officer, Burma, Rangoon, telegram, dated 24th November 1921.

The 18th November 1921.

EASTERN ARCHIPELAGO—CELEBES, EAST COAST.

Lasolo Bay—Existence of Reef.

No. 433 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1696 of 1921), are republished :—

Position.—At a distance of about 3½ miles southward of North reef.
Lat. 3° 34' 30" S., long. 122° 29' 00" E.

Depth.—One fathom (1 m 8).

Remarks.—There is practically no discoloration in the water to mark this reef.

Charts affected.—No. 3148, Salabangka strait and approaches.

" 3616, Tomori gulf to Salayar strait.

" 942a, Eastern archipelago—sheet 3.

Publication.—Eastern Archipelago Pilot, Part II, 1913, page 484.

Authority.—Hague Notices Nos. 1664 and 1790 of 1921. (H. 5310-21)

CHINA, EAST COAST—FORMOSA STRAIT, HU I TAU BAY ENTRANCE.

Dodd Island—New Light established.

No. 434 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1697 of 1921), are republished :—

Former Notice.—No. 998 of 1921 (*This Office No. 281 of 1921*) ; hereby cancelled.

Position.—Lat. 24° 26' N., long. 118° 30' E. (*approx.*).

New abridged description.—Lt. Gp. Fl. (2) ev. 15 sec., 147 ft., vis. 18m.

Details.—The occulting light with white and red sectors has been replaced by a group *flashing* light, with *white* and *red* sectors, showing two flashes in quick succession *every fifteen seconds*.

The power of the light has been increased ; the other characteristics remain unaltered.

Remarks.—The temporary flashing white light has been discontinued.

Charts affected.—No. 1959, Hu i tau and Chimo bays.

" 1760, The Brothers to Ockseu islands.

" 1968, Formosa island and strait.

" 2412, Amoy to Nagasaki.

" 1262, Hongkong to Gulf of Liau tung.

" 1263, China sea.

Publications.—List of Lights, Part VI, 1921, No. 1544.

China Sea Pilot, Vol. V, 1912, pages 135, 136.

Authority.—Shanghai Notice No. 734 of 13th July 1921. (H. 5294-21.)

JAPAN—SHIMONOSEKI KAIKYO.

(1) *Hayatomo Seto—Tidal Light-Buoy established.*

(2) *Gomiyose Su—Light-buoy withdrawn.*

No. 435 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1698 of 1921), are republished :—

(1) **Hayatomo Seto.**

Position.—At a distance of 3·53 cables, 288°, from Moji zaki 62-foot ▲.
Lat. 33° 58' N., long. 130° 57' E. (*approx.*).

Description.—A conical tidal observation light buoy, painted half white and half red vertically, exhibiting a *fixed* light showing *white* over an arc of 180° and *red* over an arc of 180° in accordance with the painted colours on the buoy.

Remarks.—As the light-buoy is rotated by the streams the arcs of the colours change their bearings; in the case of an east-going stream the light shows *white* towards Hino yama warning signal station, and that of a west-going stream *red* towards the same station, the colours of the buoy corresponding.

(2) Gomiyose Su.

Position.—Off the south-western side of Gomiyose su (Hamo bank). Lat. $33^{\circ} 56'$ N., long. $130^{\circ} 53'$ E. (*approx.*).

Details.—The light-buoy with occulting green light has been withdrawn.

Charts affected.—No. 3114, Moji and Shimonoseki ko. (1).

„ 1578, Shimonoseki kaikyo.

„ 532, Approach to Shimonoseki kaikyo.

Publication.—Japan Pilot, 1914, pages 570, 574; Supplement No. 5, 1921.

Authority.—Tokyo (Department of Communications) Notices Nos. 1143 and 1277 of 1921. (*H. 4817-21.*)

AUSTRALIA, VICTORIA—PORT PHILLIP.

South Channel, Pile Light—Alteration in Sector.

No. 436 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1708 of 1921), are republished:—

Position.—Lat. $38^{\circ} 20'$ S., long. $144^{\circ} 51'$ E. (*approx.*).

Description.—An occulting light with *white* and *red* sectors.

Alteration.—The *white* sector, visible from the eastward, has been reduced by 6° on the southern side, the adjoining *red* sector being extended by a corresponding arc. The *white* sector now shows between the bearings 272° and 280° .

Charts affected.—No. 2747, Entrance to Port Phillip.

„ 1171, Port Phillip.

Publication.—List of Lights, Part VI, 1921, No. 2432.

Authority.—Melbourne Notice No. 5 of 1921. (*H. 5430-21.*)

PERSIAN GULF.

Rak az Zakum—Amendment to Chart No. 2837a.

No. 437 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1710 of 1921), are republished:—

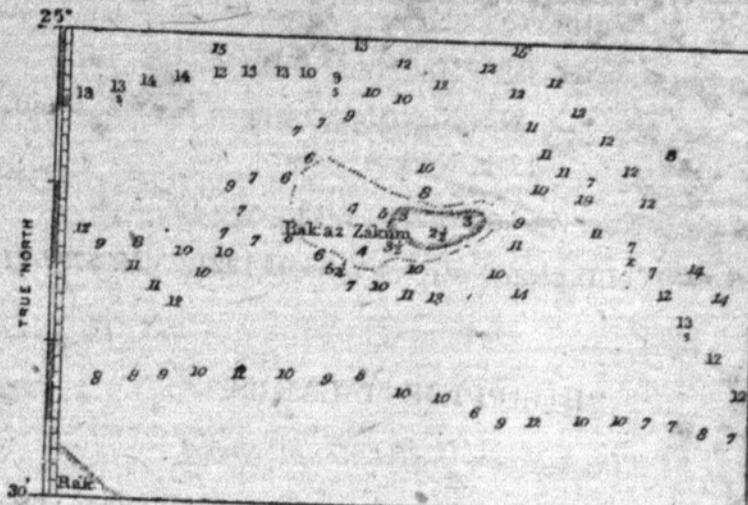
Position.—Lat. $24^{\circ} 49'$ N., long. $53^{\circ} 46'$ E. (*approx.*).

Details.—The accompanying reproduction of a portion of chart No. 2837a shows the necessary corrections to that chart with regard to the bank known as Rak az Zakum and depths in the vicinity,

Chart affected.—No. 2837a, Persian gulf—eastern sheet.

Publication.—Persian Gulf Pilot, 1915, page 91.

Authority.—H.M.S. *Cyclamen*, Hyd. Note No. 6 of 1921. (H. 5230-21.)



Reproduction of Portion of Chart No 28374

JAPAN—GULF OF TOKYO.

Yokohama North Breakwater Light—Alteration in Character.

No. 438 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1721 of 1921), are republished:—

Position.—On the outer end of the north breakwater.
Lat $35^{\circ} 28'$ N., long. $139^{\circ} 40'$ E. (approx.).

New abridged description.—Lt. F. Red, 41 ft., vis. 12 m.

Alteration.—The character of the light has been altered from occulting red to fixed red.

Remarks.—The visibility of the light is now 12 miles.

Charts affected.—No. 3109, Yokohama bay.

- „ 3548, Yokohama to Uraga.
- „ 2657, Gulf of Tokyo or Yedo.
- „ 996, Kii suido to Tokyo.
- „ 3334, Tokyo to Sendai bay.

Publications.—List of Lights, Part VI, 1921, No. 2056.
Japan Pilot, 1914, page 206; Supplement No. 5, 1921.

Authority.—Tokyo, Department of Communications, Notice No. 1262 of 1921. (H. 5343-21.)

NEW ZEALAND, NORTH ISLAND.

Pandora Bank—Reported to have extended; Caution.

No. 439 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1728 of 1921), are republished:—

Position.—Cape Marie Van Diemen lighthouse, lat. $34^{\circ} 29'$ S., long. $172^{\circ} 39'$ E. (approx.).

Details.—It has been reported from the lighthouse that Pandora bank breaks in heavy weather for a distance of about 2 miles further to the north-eastward and about 4 miles further to the eastward and south-eastward than charted.

Note.—A broken danger line is to be placed on the chart to include this extension, with the note "Reported to break (1921.)"

Caution.—All vessels should pass outside Pandora bank in heavy weather.

Charts affected.—No. 2525, Hokianga to Tutukaka.

,, 215, New Caledonia to New Zealand.

,, 1212, New Zealand.

Publication.—New Zealand Pilot, 1919, page 42.

Authority.—Wellington Notice No. 34 of 1921. (H. 5792-21.)

PHILIPPINE ISLANDS.

Tikuo Pass—Existence of Shoal.

No. 440 (*third publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1729 of 1921), are republished:—

Position.—At a distance of about 5 miles northward from Port San Jacinto.

Lat. $12^{\circ} 39' 45''$ N., long. $123^{\circ} 44' 50''$ E.

Depth.—8 fathoms (14^m6), sand and rock.

Charts affected.—No. 3369, Luzon island to Masbate island.

,, 3370, San Bernardino strait and approaches.

,, 2577, Philippine islands between San Bernardino and Mindoro straits.

,, 943, Molucca passage to Manila.

,, 1263, China sea.

Publication.—Eastern Archipelago Pilot, Part I, 1911, page 487; Supplement No. 5, 1920.—

Authority.—U. S. A. Government Chart. (H. 5305-21.)

GULF OF ADEN.

Berbera—Mooring Buoy replaced in position.

No. 441 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 122 M. of 1921), are republished:—

Former Notice.—No. 57-M of 1919. (*This office No. 268 of 1919.*)

Position.—At a distance of about 350 yards 6° , from Shaab Pier Head.

Details.—The white mooring buoy which was reported to have sunk, *vide* N. to M. quoted above has been raised and replaced in the above position.

Chart affected.—No. 3530, Berbera.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 540.

Authority.—The Port Officer, Aden, dated 18th October 1921.

INDIA, WEST COAST.

DELTA OF THE INDUS.

Sisa mouth—Beacon fallen.

No. 442 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 124 M. of 1921), are republished:—

Position.—Lat. $24^{\circ} 13' 20''$ N., long. $67^{\circ} 18' 00''$ E.

Details.—The Single Spar beacon with 3 planks fixed at the top which was temporarily erected at the Chan Mouth in 1914, is reported to have fallen.

Note.—This beacon is not shewn on the Admiralty Charts.

Charts which were temporarily affected.—No. 41, Cape Monze to Kediwari Mouth.

„ 39, Sind and Kutch Coasts.

„ 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 330.

Authority.—Chief Collector of Customs of Sind, dated 29th October 1921.

INDIA, WEST COAST—DELTA OF THE INDUS.

Hajamro Mouth—Beacon fallen.

No. 443 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 125M. of 1921), are republished:—

Position.—Lat. $24^{\circ} 07' 52''$ N., long. $67^{\circ} 20' 08''$ E.

Details.—The beacon of a mast 50 feet in height, with frame work top mark, consisting of two triangles placed horizontally, points together, on the right bank of the river, is reported to have fallen.

Charts affected.—No. 41, Cape Monze to Kediwari Mouth.

„ 39, Coasts of Sind and Kutch.

„ 826, Karachi to Vengurla.

Publication.—West Coast of India Pilot, 1919, page 331.

Authority.—Chief Collector of Customs in Sind, dated 29th October 1921.

INDIA, EAST COAST—CUDDALORE.

Alteration in Character of Light.

No. 444 (*third publication*).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 49 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Cuddalore will take place on or after the 1st February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $11^{\circ} 43' N.$
Longitude $79^{\circ} 46' E.$

Character of Light.—White Flashing Acetylene Light, giving a single quick flash every three seconds, i.e., flash $\frac{1}{3}$ second, darkness $\frac{2}{3}$ seconds.

Description of Tower.—White Tower over square white house.

Height and Range.—About 65 feet above High Water Range 12 miles.

Arc of illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

„ 71, Madras to Calimere Point.

„ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot, 1910, page 210, List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 553.

Remarks.—Nil.

Authority.—Port Officer, Cuddalore.

GULF OF ADEN.

CAUTION—Obstruction to navigation.

No. 445 (third publication).—

Subject.—The master of the SS. "Gharinda" reports having struck a light obstruction in the following position.

Position.—Lat. $13^{\circ} 24' N.$, long. $50^{\circ} 35' E.$ (By stellar observation.)

Caution.—Mariners are hereby warned.

Charts affected.—No. 6a, Gulf of Aden, eastern portion.

„ 1012, Arabian sea,

Authority.—Marine Superintendent, B. I. S. N. Co., Calcutta, letter dated 17th November 1921.

AUSTRALIA—EAST COAST.

Moreton bay—Removal of south-west Spit buoy.

No. 446 (third publication).—

The Portmaster, Brisbane, has given notice No. 16 of 1921 that the red buoy marking the South-west Spit, Central Banks, Moreton Bay, will be removed on the 14th November 1921, and will not be re-established.

Charts affected.—Nos. 1670 A and B, 1029 and 1068; Australia Pilot, vol. 3, page 98. Queensland Sailing Directions, pages 86 and 89.

EASTERN ARCHIPELAGO—NEW GUINEA, NORTH-WEST COAST, SELE STRAIT.

Doom island—Light established.

No. 447 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1750 of 1921), are republished:—

Position.—On the outer end of a pier which extends 44 yards (40^m2) from the eastern extremity of Doom island.

Lat. $0^{\circ} 53' 20'' S.$, long. $131^{\circ} 14' 00'' E.$

Abridged description.—Lt. F. Red, 7 ft., vis. 6 m.

Characteristics:

Character.—*Fixed red.*

Elevation.—7 feet (2^m1).

Visibility.—6 miles.

Remarks.—The light is obscured to the north-westward when bearing less than 143°.

Charts affected.—No. 1416, Sele strait.

„ 3745, Kabu islands to Tanjong Kasbi.

Publications.—List of Lights, Part VI, 1921, No. 2773a.

Eastern Archipelago Pilot, Part III, 1911, page 271.

Authority.—Hague Notice No. 1553 of 1921. (H. 5380-21.)

PHILIPPINE ISLANDS—TANON STRAIT, NEGROS ISLAND.

Guijulugan—Light established.

No. 448 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1755 of 1921), are republished:—

Position.—Lat. 10° 07' 18" N., long. 123° 16' 18" E.

Abridged description.—Lt. F. Red, 36 ft., vis. 7 m.

Characteristics:

Character.—*Fixed red.*

Elevation.—36 feet (11^m0).

Visibility.—7 miles.

Structure.—White concrete beacon, 30 feet (9^m1) in height.

Charts affected.—No. 2578, Eastern part of the Sulu or Mindoro sea
„ 943, Molucca passage to Manila.

Publications.—List of Lights, Part VI, 1921, No. 1172a.
Eastern Archipelago Pilot, Part I, 1911, page 378.

Authority.—U. S. A. Hyd. Office Notice No. 3276 of 1921. (H. 5880-21.)

INDIA, WEST COAST—MALABAR COAST.

Mangalore Harbour—Caution.

No. 449 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1762 of 1921), are republished:—

Position.—Lat. 12° 51' N., long. 74° 50' E. (approx.).

Caution.—Considerable changes are reported to have taken place in the appearance and aspect of Mangalore since the date of the survey, and the lighthouse is difficult to distinguish. Caution is therefore necessary when fixing the ship's position or navigating in the vicinity.

Note.—A note to the above effect is to be inserted on the chart.

Chart affected.—No. 3267, Plan of Mangalore harbour.

Publication.—W.C. India Pilot, 1919, page 155.

Authority.—H.M.S. *Odin*, Remark Book, 1920. (H. 8364-20.)

JAPAN—HOKUSHŪ, NORTH COAST.

Sankeushi Misaki—Decreased Depths reported in vicinity.

No. 450 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1776 of 1921), are republished:—

Position.—Sankeushi misaki, lat. $44^{\circ} 53'$ N., long. $142^{\circ} 37'$ E. (approx.).

Caution.—Less water than charted is reported to exist between the rock, marked "P.D." on the charts, situated in lat. $44^{\circ} 52'$ N., long. $142^{\circ} 41'$ E. (approx.), and Sankeushi misaki to the northward.

Note.—A note "*Shoaler water reported (1921)*" is to be inserted in the above vicinity on the charts.

Charts affected.—No. 3600, Plan of Yeshashi anchorage.

,, 452, Hokushū island and La Pérouse strait.

Publication.—Japan Pilot, 1914, page 746.

Authority.—Tokyo Notice No. 268 of 1921. (H. 5863-21.)

JAPAN—SHIMONOSEKI KAIKYO.

Chuo Suido—Existence of Wreck.

No. 451 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1777 of 1921), are republished:—

Position.—At a distance of 1·20 miles, 312° , from He saki lighthouse.
Lat. $33^{\circ} 58'$ N., long. $131^{\circ} 00'$ E. (approx.).

Description.—Sunken wreck of a three-masted sailing vessel.

Charts affected.—No. 1578, Shimonoseki kaikyo.

,, 532, Approach to Shimonoseki kaikyo.

,, 3225, Shimonoseki kaikyo to Maruyama zaki.

Authority.—Tokyo Notice No. 297 of 1921. (H. 6026-21.)

NORTH PACIFIC OCEAN.

Greenwich Islands—Reported to lie further eastward.

No. 452 (third publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1784 of 1921), are republished:—

Position on charts.—Lat. $1^{\circ} 04'$ N., long. $154^{\circ} 43'$ E. (approx.).

Details.—The group of islands known as Greenwich islands are reported to lie about 9 miles further eastward than charted.

Note.—A note to the above effect is to be inserted on the charts.

Charts affected.—No. 2766, North-east coast of New Guinea, &c.

,, 781, Pacific ocean—north-west sheet.

Publication.—Pacific Islands Pilot, Vol. I, 1921, page 608.

Authority.—Tokyo Notice No. 275 of 1921. (H. 5866-21.)

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta



The Calcutta Gazette

WEDNESDAY, DECEMBER 21, 1921.

APPENDIX.

NOTICES TO MARINERS.

The following Notices are republished for general information.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta.

A. MARR,
Secretary to the Government of Bengal,
Marine Department.

CALCUTTA, the 10th December 1921.

BAY OF BENGAL.

BURMA COAST.

Rangoon river entrance—Pilot brig "Kyauktan" relieved by dredger "Pelican".

No. 469 (first publication).—

Subject.—On the 15th December 1921 or as soon after as weather permits, the Pilot Brig "Kyauktan" will be relieved on the Pilot Station by the twin screw steam dredger "Pelican".

The dredger is double funnelled, painted grey with the word "Pilot" in large white letters on each side and has a signal mast forward.

Charts affected.—No. 833, Rangoon river and approaches.

" 823, Koronge island to White point.

" 830, Bassein river to Pulo Penang.

Publication.—Bay of Bengal Pilot, 1910, page 458; Supplement No. 5, 1920.

Authority.—Deputy Conservator, Port Commissioners, Rangoon, Notice, dated 30th November 1921.

CHINA, EAST COAST.

YANGTZE RIVER, SOUTH CHANNEL ENTRANCE.

Light-vessel "Kiutoan"—Fog-signal changed.

No. 470 (*first publication*).—The Coast Inspector, Shanghai, has given Notice No. 738 of 1921 that the fog-bell on the Light-vessel *Kiutoan* has been discontinued and replaced by an acetylene fog gun, which, during foggy or thick weather, will give one report every half minute.

PHILIPPINE ISLANDS.

Kalamazoo Group—Amendments to Charts with regard to Shoals.

No. 471 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1836 of 1921), are republished:—

Position.—Green island (Nalaut), lat. $12^{\circ} 03'$ N., long. $119^{\circ} 47'$ E.
(approx.).

Details.—The accompanying reproductions of portions of chart Nos. 2577, 967, 2661*b*, 943 and 2660*b*, show the necessary corrections to those charts with regard to shoals in the vicinity of the Kalamianes group and the north coast of Busuanga.

Charts affected.—No. 2577, Philippine islands between San Bernardino and Mindoro straits.

„ 967, Palawan island.

.., 2661b, China sea, northern portion—eastern sheet.

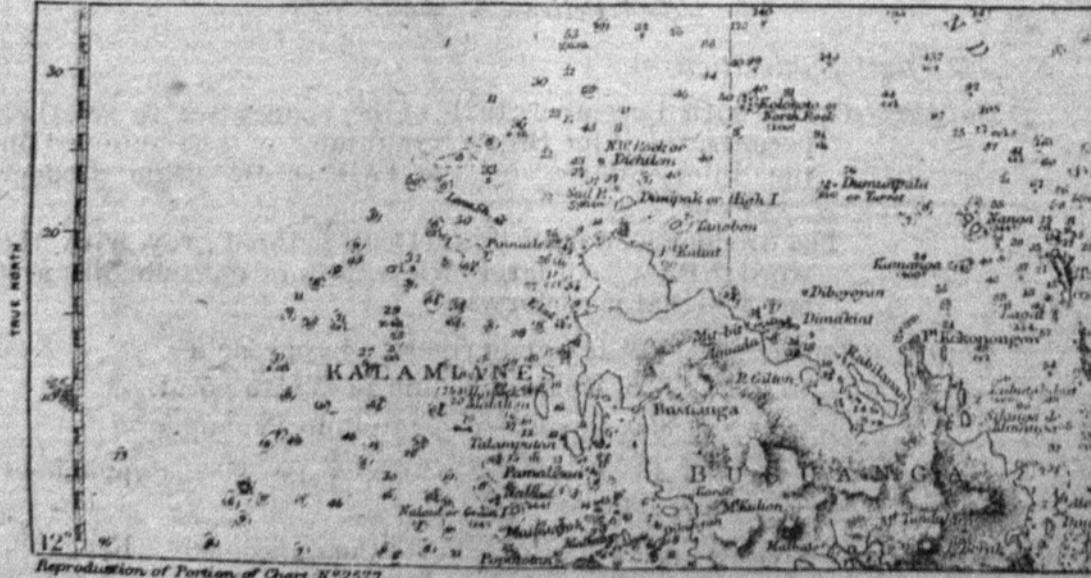
„ 943, Molucca passage to Manila.

,, 2660b, China sea, southern portion—eastern sheet.

Publications.—China Sea Pilot, Vol. IV, 1912, pages 209, 210; Supplement No. 6, 1921.

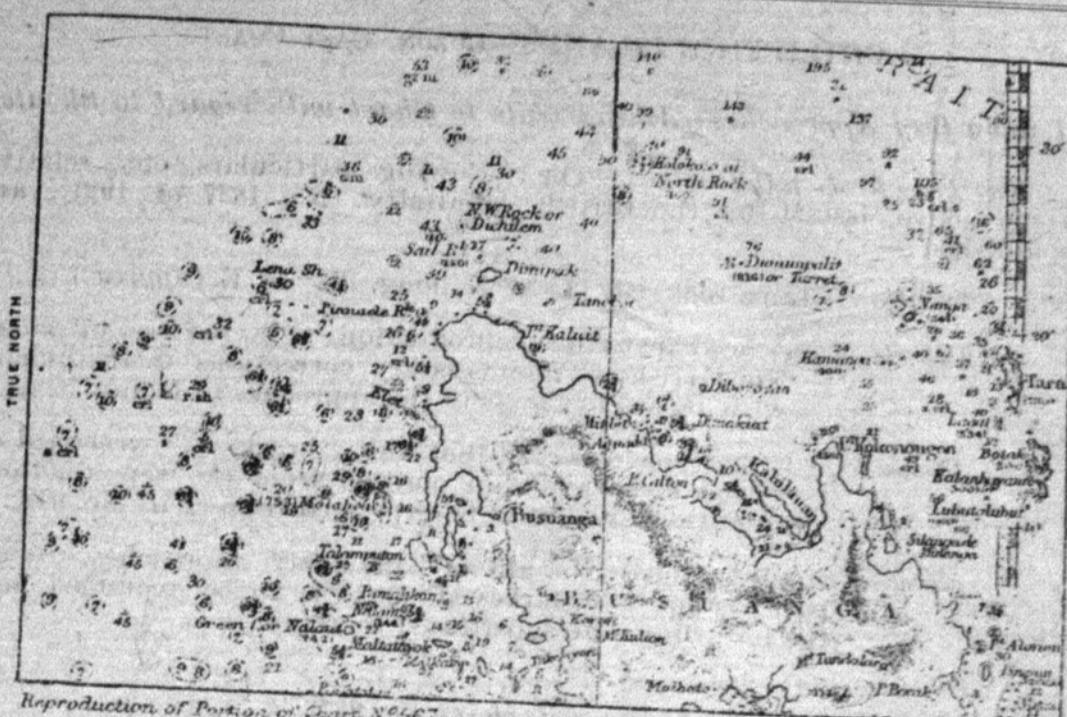
Eastern Archipelago Pilot, Part I, 1911, pages 48, 50,
51; Supplement No. 5, 1920.

Authority.—United States Government Chart. (H. 5369-21.)



APPENDIX TO THE CALCUTTA GAZETTE, DEC. 21, 1921.

819



Reproduction of Portion of Chart N° 567.

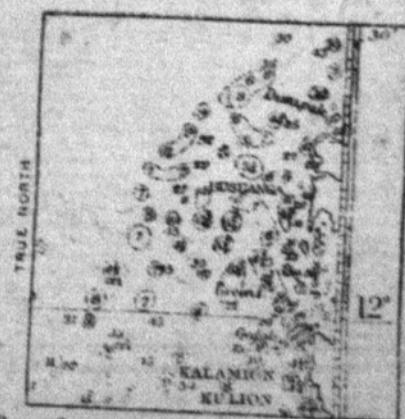


Reproduction of Portion of Chart N° 2661.

0 10 20 30 40 Sea Miles



Reproduction of Portion of Chart N° 343.



Reproduction of Portion of Chart N° 2662.

PHILIPPINE ISLANDS—LUZON, EAST COAST.

Lamon Bay Approaches—Amendments to Chart with regard to Shoals.

No. 472 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1837 of 1921), are republished:—

Position.—Lima rock, lat. $14^{\circ} 36' N.$, long. $122^{\circ} 46' E.$ (*approx.*).

Details.—The accompanying reproduction of a portion of chart No. 2577 shows the necessary corrections to that chart with regard to shoals in the approaches to Lamon bay.

Remarks.—It will be observed that the “breakers” westward of Lima rock have been omitted from the reproduction, and they are also to be expunged from chart No. 943.

Note.—The note on chart No. 943 in Lamon bay approaches, “This part has not been surveyed, etc.,” is to be expunged and the following note substituted therefor:—

“See larger scale chart No. 2577.”

The following cautionary note is also to be inserted below the title of the chart:—

“CAUTION.”

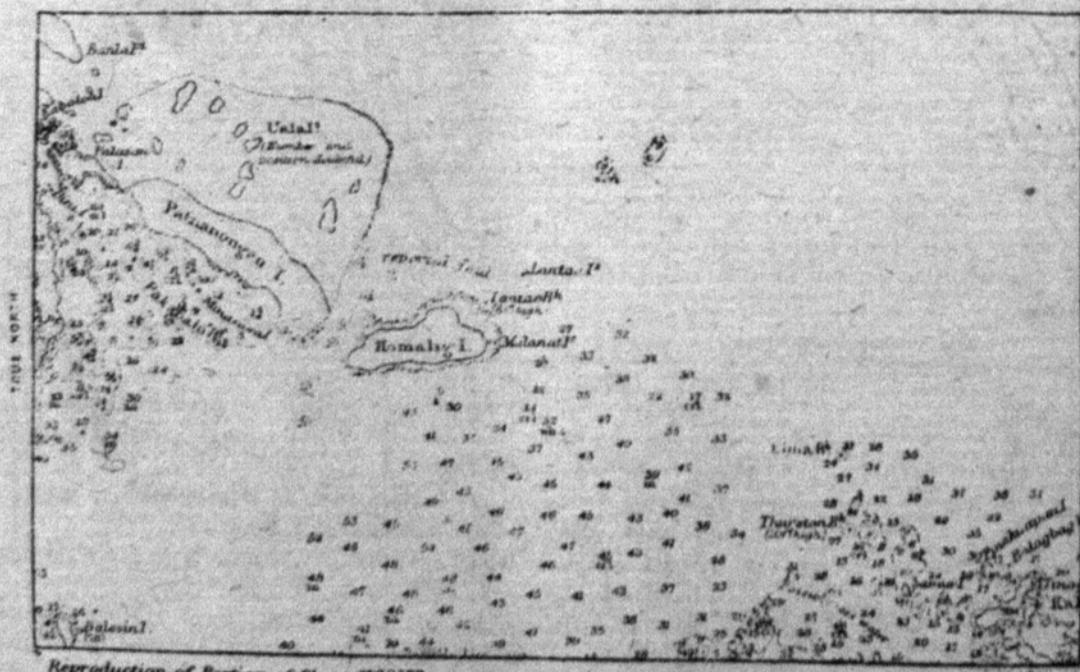
“Until a new edition of this chart has been issued, the largest scale charts embracing this area must be used.”

Charts affected.—No. 2577, Philippine islands between San Bernardino and Mindoro straits.

„ 943, Molucca passage to Manila.

Publication.—Eastern Archipelago Pilot, Part I, 1911, pages 541, 542, 553.

Authority.—U. S. A. Government Chart. (H. 5702-21.)



0 10 15 20 Sea Miles

SOUTH AFRICA—NATAL.

Port Shepstone Light—Alteration in Character.

No. 473 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1846 of 1921), are republished:—

Position.—Lat. $30^{\circ} 45'$ S., long. $30^{\circ} 28'$ E. (*approx.*).

New abridged description.—Lt. Fl. ev. 10 sec., 78 ft., vis. 15m.

Alteration.—The character of the light has been altered from occulting white to *flashing white every ten seconds*.

Remarks.—The power of the light is now 27,000 candles; in other respects the light is unaltered.

Note.—The position of this light is incorrectly shown on chart No. 748a, which is to be amended to agree with the larger scale charts.

Charts affected.—No. 2087, Bashee river to Umtamvuna river.

“ 2088, Umtamvuna river to Tugela river.

“ 2095, Hondeklip bay to Port Natal.

“ 748a, Indian ocean—southern portion.

Publications.—List of Lights, Part VI, 1921, No. 45.

Africa Pilot, Part III, 1915, page 165.

Authority.—South African Railways and Harbours Notice No. 681 of 1921. (H. 6102-21).

MALAY PENINSULA—MALACCA STRAIT ENTRANCE.

Kan Tan Southern Approach—Existence of Wreck.

No. 474 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1849 of 1921), are republished:—

Position.—At a distance of about five miles northward of Pulo Mulun.

Lat. $6^{\circ} 55' 00''$ N., long. $99^{\circ} 32' 00''$ E. (*approx.*).

Description.—Sunken wreck of the S.S. *Perlis* with masts showing 12 feet (3 $\frac{1}{2}$) above low water.

Remarks.—A white can buoy has been established to mark the wreck.

Chart affected.—No. 842, Sayer islands to Langkawi island.

Authority.—Bangkok Notice No. 215 of 1921. (H. 6100 & 6167-21.)

JAPAN—HOKUSHU, SOUTH COAST.

Mororan Ko—Dredging in progress; Obstruction removed.

No. 475 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1850 of 1921), are republished:—

Position.—Mororan, lat. $42^{\circ} 19'$ N., long. $140^{\circ} 58'$ E. (*approx.*).

Details.—(1) Dredging operations are in progress in the area indicated on the accompanying reproduction of a portion of chart No. 3507. Vessels are warned to give the dredger a wide berth.

By day the dredger will display a white flag, with a red ball within it, over a red flag.

By night a red light over a green light will be exhibited.

(2) The obstruction formerly shown on the charts about 5·75 cables northward of the west pierhead does not exist and is therefore omitted from the reproduction; it is to be expunged from chart No. 3591.

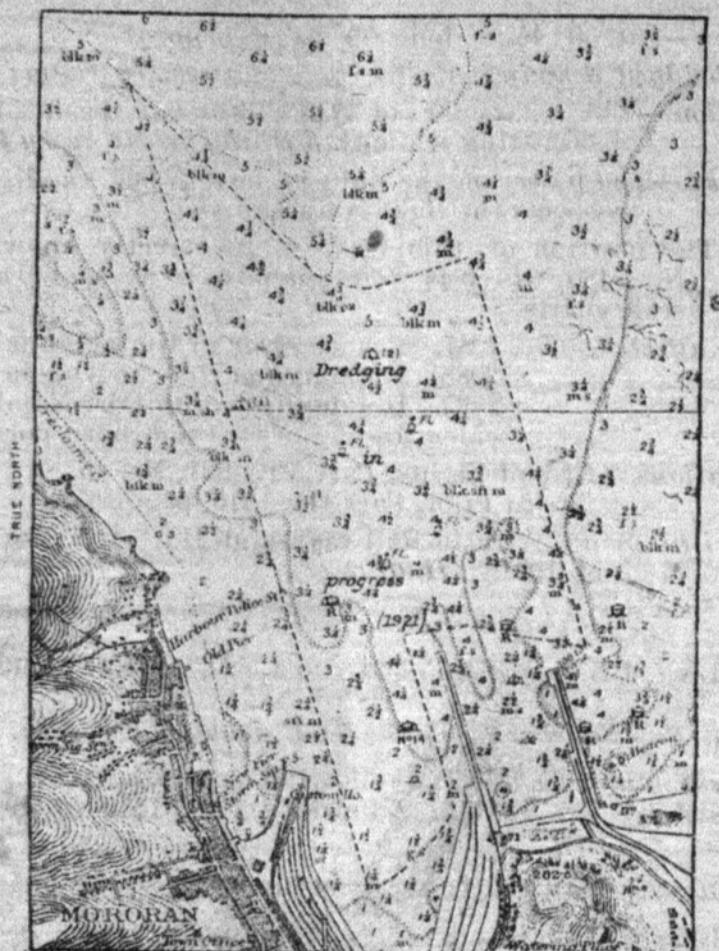
Charts affected.—No. 3507, Mororan ko.

, 3591, Iburi wan or Uchiura wan. (2).

Publication.—Japan Pilot, 1914, page 718; Supplement No. 5, 1921.

Authority.—Tokyo Notices Nos. 278 and 287 of 1921.

(H. 6019 & 6022-21.)



Reproduction of Portion of Chart N° 3507.

10 Cables
or One Sea Mile

NEW ZEALAND—NORTH ISLAND, COOK STRAIT.

Karori Rock Light—Amended Limit of Sectors.

No. 476 (*first publication*).—The following particulars, etc. relative to the above, issued by the British Admiralty (No. 1852 of 1921), are republished:—

Position.—Lat. $41^{\circ} 21'$ S., long. $174^{\circ} 40'$ E. (*approx.*).

Details.—The bearing between the north-western *red* sector and the *white* sector is 143° , and not 134° as shown on the charts and in Admiralty publications, which are to be corrected accordingly.

Caution.—As the above corrected bearing passes through Luna rock, vessels should keep the light bearing less than 134° when navigating between Karori rock and Cape Terawhitii.

Charts affected.—No. 695, Cook strait.

, 2054, Cook strait and the coast to Cape Egmont.

Publications.—List of Lights, Part VI, 1921, No. 2949.

New Zealand Pilot, 1919, page 111.

Authority.—Wellington Notice No. 40 of 1921. (H. 6190-21.)

NEW ZEALAND—COOK STRAIT, SOUTH ISLAND.

Chetwode Islands—Light established.

No. 477 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1858 of 1921), are republished:—

Position.—On the outer islet at the south-western end of the Chetwode islands.

Lat. $40^{\circ} 55' 07''$ S., long. $174^{\circ} 04' 25''$ E. (*approx.*).

Abridged description.—Lt. Fl. ev. $3\frac{1}{4}$ sec., 55 ft., vis. 10 m. (U).

Characteristics:

Character.—*Flashing white every three and three-quarters seconds thus:*

<i>Flash,</i>	<i>eclipse,</i>
0·75 sec.	3·00 sec.

Elevation.—55 feet (16m8).

Visibility.—10 miles.

Structure.—Small white tower.

Note.—This light, which is unwatched, is known as Ninepins rock light.

Charts affected.—No 2584, Cook strait anchorages—sheet 1.

“ 2685, Cook strait anchorages—sheet 2.

“ 695, Cook strait.

“ 2054, Cook strait and the coast to Cape Egmont.

“ 3629, Hokitika to Otago harbour.

“ 1212, New Zealand.

Publications.—List of Lights, Part VI, 1921, No. 2997.

New Zealand Pilot, 1919, page 304.

Authority.—Wellington Notice No. 43 of 1921. (H. 6302-21.)

GULF OF ADEN, SOUTHERN SHORE.

Berbera—Caution with regard to Shoaling.

No. 478 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1871 of 1921), are republished:—

Position.—Lat. $10^{\circ} 27'$ N., long. $45^{\circ} 01'$ E. (*approx.*).

Caution.—Shoaling is reported to be taking place in Berbera harbour. A note to this effect is to be placed on the chart.

Remarks.—The silting is greatest on the southern side of the harbour, particularly in the vicinity of Shaab pier which is now only accessible to boats at high water.

Chart affected.—No. 3530, Berbera.

Publication.—Red Sea, &c., Pilot, 1921, pages 539, 540.

Authority.—H.M.S. *Odin*, Remark Book, 1920. (H. 7434-20.)

EASTERN ARCHIPELAGO—LOMBOK, SOUTH COAST.

Silung Belanak Approach—Amended Position and Depth of Shoal.

No. 479 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1872 of 1921), are republished :—

Position.—At a distance of about 3 cables north-eastward of charted position, in the southern approach to Silung Belanak.

Lat. $8^{\circ} 55' 36''$ S., long. $116^{\circ} 03' 46''$ E.

Depth.—2 fathoms (3^m 7) in lieu of 3 fathoms hitherto shown on the charts.

Note.—This shoal, with the depth amended, is to be moved on the charts to the position given above and the note “(posn. approx.)” is to be expunged.

Charts affected.—No. 2732, Plan of Telok Blongas and Silung Belanak.

“ 1654, Island of Java—eastern portion.

“ 941b, Eastern archipelago—sheet II.

Publication.—Eastern Archipelago Pilot, Part II, 1913, page 221.

Authority.—Netherlands Government Chart. (H. 6343-21.)

CEYLON—SOUTH COAST.

Matara W. T. Station—Alteration in Time of Weather Bulletin and Storm Signal.

No. 480 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1878 of 1921), are republished :—

Former Notice.—No. 814 of 1921. (*This office No. 167 of 1921.*)

Position.—Matara W-T station, lat. $5^{\circ} 59'$ N., long. $80^{\circ} 32'$ E. (*approx.*).

Alteration.—The message containing the weather bulletin and storm signal is now broadcasted daily at 0135 and 1335 G.M.T. (civil).

Publications.—List of Lights, Time Signals and Wireless Signals, 1921 (All Parts), Nos. 6228a and 6359a.

Bay of Bengal Pilot, 1910, pages 77 and 132; Supplement No. 5, 1920.

Authority.—Commander-in-Chief, East Indies Station. (H. 6140-21.)

NEW ZEALAND—NORTH ISLAND, MANUKAU HARBOUR ENTRANCE.

(1) *Mahanihani (South Head)—Leading lights established.*

(2) *North Head—Leading lights established.*

(3) *Destruction Gully light—Alteration in character.*

No. 481.—*first publication.*—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1883 of 1921), are republished :—

(1) **Mahanihani (South Head).**

(a) *Rear light :*

Position.—On the signal mast on South head.

Lat. $37^{\circ} 03'$ S., long $174^{\circ} 33'$ E. (*approx.*).

Abridged description.—Lt. Occ. ev. 3 sec., vis 14 m. (U).

Characteristics :

Character.—*Occulting white every three seconds.* thus :

<u>Light,</u>	<u>eclipse,</u>
2 sec.	1 sec.

Elevation.—Not stated.

Visibility.—14 miles, from 065° to 075° .

(b) Front light :

Position.—At a distance of 1·67 cables, 250° , from rear light.
Abridged description.—Lt. Occ. ev. sec., vis. 10 m. (U).

Characteristics :

Character.—*Occulting white every second,* thus :

<u>Light,</u>	<u>eclipse,</u>
0·5 sec.	0·5 sec.

Elevation.—Not stated.

Visibility.—10 miles, from 047° to 092° .

Structure.—Wooden beacon.

Remarks.—These lights in line bearing 070° lead over the bar, on which there was a least depth of 23 feet (7^m0) at M. L.W.S. in August 1921.

(2) North Head.

(a) Front light :

Position.—At a distance of 1·80 cables, 206° , from the 731-foot, summit on North head.

Lat. $37^{\circ} 02'$ S., long. $174^{\circ} 30'$ E. (approx.).

Abridged description.—Lt. F., 430 ft.

Characteristics :

Character.—*Fixed white.*

Elevation—430 feet (131^m1).

Structure.—White beacon.

(b) Rear light.

Position.—At a distance of 0·68 of a cable, 026° , from front light.

Abridged description.—Lt. F., 500 ft.

Characteristics :

Character.—*Fixed white.*

Elevation—500 feet (152^m4).

Structure.—White beacon.

Note.—This leading line is not to be shown on the charts.

(3) Destruction Gully Light.

Position.—On the northern side of the entrance, at a distance of about one mile southward from Mount Donald McLean.

Lat. $37^{\circ} 02'$ S., long. $174^{\circ} 32'$ E. (approx.).

New abridged description.—Lt. Fl. ev. 3 sec., Wh. & Gn. 70 ft., vis. 10 m. (U).

Alteration.—The character of the light has been altered from fixed with white and green sectors to *flashing*, with *white* and *green* sectors, *every three seconds*, thus :

<u>Flash,</u>	<u>eclipse,</u>
0·4 sec.	2·6 sec.

Remarks.—The light is unwatched.

Note.—In other respects the light is unaltered.

Charts affected.—No. 2726, Manukau harbour.

„ 2543 Maunganui bluff to Manukau harbour, and Tutukaka harbour to Mayor island.

„ 2535, Manukan harbour to Cape Egmont.

Publications.—List of Lights, Part VI, 1921, Nos. 2964, 2964a, 2965, 2966, 2967.

New Zealand Pilot, 1919, pages 67, 68, 70; Supplement No. 1, 1920.

Authority.—New Zealand Almanac, 1921, and Wellington Notice No. 39 of 1921. (H. 6010 & 6189-21.)

EASTERN ARCHIPELAGO—CELEBES, EAST COAST.

Tomori Gulf—Rock and Shoal to be inserted on Chart.

No. 482 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1887 of 1921), are republished:—

(1) *Rock*:

Position.—At a distance of about 4½ miles northward from Tanjung Dongkala.

Lat. 2° 13' 45" S., long. 121° 48' 30" E.

Description.—A rock with a depth of less than 6 feet (1^m8).

(2) *Shoal*:

Position.—At a distance of about a quarter of a mile, northward from (1).

Lat. 2° 13' 25" S., long. 121° 48' 23" E.

Depth.—One fathom (1^m8).

Chart affected.—No. 2549, Tomori gulf.

Publication.—Eastern Archipelago Pilot, Part II, 1913, page 489.

Authority.—Netherlands Government Chart. (H. 6401-21.)

JAPAN—KIUSIU, WEST COAST, HIRADO SHIMA.

Itoya Ura—Existence of Shoal.

No. 483 (first publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1888 of 1921), are republished:—

Position.—At a distance of 2'60 cables, 030°, from the 85-foot summit on Takenoko shima, the islet situated in the south-eastern part of Itoya ura.

Lat. 33° 14' N., long. 129° 25' E. (approx.).

Depth.—2½ fathoms (4^m1), rock.

Charts affected.—No. 1527, Southern approaches to Hirado kaikyo.

„ 2387, Io jima to Madara jima.

Publication.—Japan Pilot, 1914, page 514.

Authority.—Tokyo Notice No. 303 of 1921. (H. 6250-21.).

JAPAN—INLAND SEA, HARIMA NADA.

Sinhama Point (Misaki)—Light established.

No. 484 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1889 of 1921), are republished:—

Position.—On the rock, which dries 5 feet at low water, situated 2 cables southward of Sinhama point.

Lat. $34^{\circ} 43'$ N., long. $134^{\circ} 24'$ E. (*approx.*).

Abridged description.—Lt. Fl. ev. 2 sec., vis. 9 m (U).

Characteristics:

Character.—*Flashing white every two seconds.*

Elevation.—16 feet (4 m 9).

Visibility.—9 miles, from 205° through west to 115° .

Power.—100 candles.

Structure.—Black stone beacon with staff.

Remarks.—The light is unwatched.

Note.—The light is named “Niihama.”

Charts affected.—No. 694, Plan of Uura and Sakoshi and Morotsu bays.

” 3566, Izumi nada and Harima nada.

” 2875, Naikai (Seto uchi) or Inland sea.

Publications.—List of Lights, Part VI, 1921, No. 1988a.

Japan Pilot, 1914, page 293.

Authority.—Tokyo, Department of Communications, Notice No. 1527 of 1921. (H. 6336-21.)

AUSTRALIA, QUEENSLAND—GREAT BARRIER REEF.

Blackwood Channel, North Channel—Existence of Shoals.

No. 485 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1890 of 1921), are republished:—

(1) *Position.*—At a distance of about 4 miles eastward of the eastern end of Cockburn reef.

Lat. $11^{\circ} 48' 45''$ S., long. $143^{\circ} 32' 50''$ E.

Description.—A coral head about 1½ cables in extent.

Note.—The shoal is to be marked on the charts with the note “*Shoal repd. (1921) not examd.*”

(2) *Position.*—At a distance of about half a mile northward from the north-western end of Cockburn reef.

Lat. $11^{\circ} 45' 04''$ S., long. $143^{\circ} 15' 56''$ E.

Depth.—One fathom (1 m 8).

Description.—A coral head about 1½ cables in extent.

(3) *Position.*—At a distance of about three-quarters of a mile north-westward from (2).

Lat. $11^{\circ} 44' 43''$ S., long. $143^{\circ} 15' 14''$ E.

Description.—A coral head about 1½ cables in extent.

Note.—The shoal is to be marked on the charts with the note “*Shoal repd. (1921) not examd.*”

Charts affected.—No. 2920, Cape Direction to Cape Grenville.
 " 2919, Cape Grenville to Cape York. (2) and (3)
 " 2354, Cape Grenville to Booby island.

Publications.—Australia Pilot, Vol. III, 1916, page 154.
 Australia Pilot, Vol. IV, 1917, page 290.

Authority.—H.M.S. *Geranium*, Hyd. Note No. 3 of 1921. (H. 6296-21.)

MALACCA STRAIT—SUMATRA, PULO WEH.

Sabang Bay—Extension of Wharves; Alterations in Lighting; Positions of Mooring-Buoys.

No. 486 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1894 of 1921), are re-published:—

Position.—Sabang, lat. $5^{\circ} 54' N.$, long. $95^{\circ} 20' E.$ (*approx.*).

Details.—The accompanying reproduction of a portion of chart No. 2201 shows the recent extension of the coaling wharves and piers at Sabang, the position of a new light on the pier near the Harbour Master's office, and the positions of mooring-buoys.

From the reproduction it will be seen that:

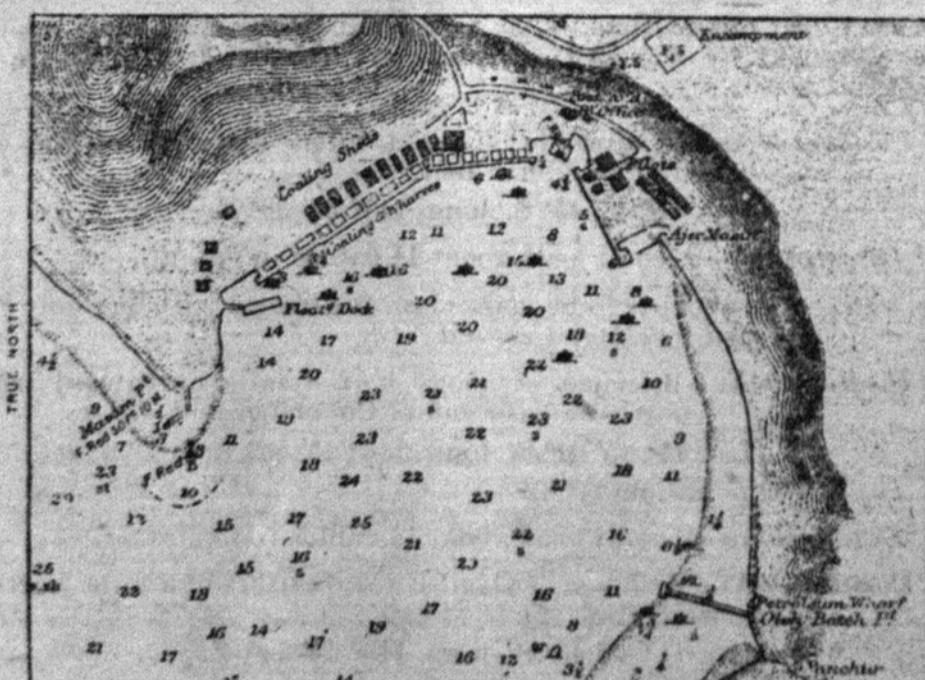
The fixed green light, formerly exhibited from the outer end of the petroleum pier at Oleh Bateh point, has been discontinued.

The pier eastward of the floating dock has been removed and the fixed red light formerly exhibited on the outer end has been discontinued.

Chart affected.—No. 2201, Plan of Sabang bay.

Publications.—List of lights, Part VI, 1921, Nos. 704, 705, 706.
 China Sea Pilot, Vol. I, 1916, pages 52, 53, 54.

Authority.—H.M.S. *Hollyhock*, Hyd. Note No. 9 of 1921, and Netherlands Government Chart. (H. 5096-21.)



EASTERN ARCHIPELAGO—TENIMBER ISLANDS.

Ritabel Bay Approach—Rock to be inserted on Chart.

No. 487 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1897 of 1921), are re-published:—

Position.—At a distance of about one mile eastward of Barnusa, and 4° miles, 327°, from Watmomal island at the entrance to Ritabel bay.

Lat. 7° 01' S., long. 131° 40' E. (*approx.*).

Details.—The symbol for a rock, with the note “E.D.” is to be placed on the chart in the above position.

Chart affected.—No. 2465, Plan of Ritabel bay and approaches.

Publication.—Eastern Archipelago Pilot, Part III, 1911, page 238.

Authority.—Netherlands Government Chart. (H. 6286-21.)

CHINA SEA—FORMOSA, NORTH COAST.

Kiirun W/T Station—Weather Bulletin and Storm Signals established.

No. 488 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1899 of 1921), are re-published:—

Position.—Kiirun W/T station, lat. 25° 08' N., long. 121° 45' E. (*approx.*).

Call signal.—JFK.

Wave length.—600 metres.

Details.—Kiirun W/T station transmits daily a weather bulletin at 1130 G.M.T. (civil); and storm signals at 1205 G.M.T. (civil).

The station also transmits the warnings, issued by the Central Meteorological Observatory at Tokyo, immediately after being received.

No charge is made, except in cases where the warnings are transmitted specially at the request of ships.

The messages are sent out in English, and are transmitted three times in succession, each being preceded by the signal QST sent three times.

The warnings contain the following:—

(1) Typhoon or low atmospheric pressure, date, time, position of centre, reading of barometer at centre, and direction of progressive motion; or,

(2) Locality, warning and remarks.

Publications.—List of Lights, Time Signals and Wireless Signals, 1921 (All Parts), Nos. 6232 and 6363.

China Sea Pilot, Vol. V, 1912, page 31; Supplement No. 5, 1920.

Authority.—Tokyo Notice No. 266 of 1921. (H. 5861-21.)

SUMATRA, WEST COAST—MENTAWI ISLANDS, SOUTH PAGI ISLAND.

(1) *Vekens Bay—Existence of Shoals.*
 (2) *Vekens bay approach—Non-existence of reef.*

No. 489 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1906 of 1921), are republished:—

(1) Vekens Bay.

(a) *Position.*—At a distance of 253 miles, 053°, from the easterly rock on Lennep reef

Lennep reef, lat. 3° 07' S., long. 100° 28' E. (*approx.*).

Depth.—9 fathoms (16^m5).

(b) *Position.*—At a distance of 0·75 miles, 056°, from the easterly rock on Lennep reef (*approx.*).

Depth.—4 fathoms (7^m3).

(c) *Position.*—At a distance of 2·57 miles, 062°, from the easterly rock on Lennep reef.

Depth.—3 fathoms (5^m5).

Remarks.—This shoal is connected to the shore of Tinopo island by a shallow spit.

(2) Vekens Bay Approach.

Position.—At a distance of about 9 miles north-eastward from Sebalua point.

Lat. 2° 56' S., long. 100° 35' E. (*approx.*).

Description.—A reef with depths of from 2 fathoms (3^m7) to 3 fathoms (5^m5).

Remarks.—The reef is to be expunged from the charts.

Charts affected.—No. 2761, Chingkuk bay to the Strait of Sunda (2), with plan (1).

,, 748b, Indian ocean—northern portion. (2).

Publication.—China Sea Pilot, Vol. I, 1916, page 465.

Authority.—Netherlands Government Chart. (H. 6379 & 6413-21.)

CHINA SEA—SINGAPORE STRAIT.

Raffles Lighthouse—Non-existence of Magnetic Disturbance in Vicinity.

No. 490 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1913 of 1921), are republished:—

Former Notice.—No. 872 of 1920 (*This Office No. 207 of 1920*); hereby cancelled.

Position.—Raffles lighthouse, lat. 1° 10' N., long. 103° 44' E. (*approx.*).

Details.—A careful examination has disproved the existence of any permanent magnetic disturbance in the vicinity of Raffles lighthouse.

Chart which was temporarily affected.—No. 2403, Singapore strait.

Publication.—China Sea Pilot, Vol. I, 1916, page 253; Supplement No. 5, 1921.

Authority.—Hydrographic Department. (H. 3276-20.)

CHINA SEA—MALAY PENINSULA.

Silantei Point—Light to be established southward of.

No. 491 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1914 of 1921), are republished:—

Date of establishment.—Not stated.

Position.—At the village of Mersing, situated about 3 miles southward of Silantei point.

Lat. $2^{\circ} 27' 15''$ N., long. $103^{\circ} 49' 15''$ E.

Description.—Not stated.

Remarks.—The intended visibility of this light is reported to be 12 miles.

Note.—The symbol for a light is to be placed on the charts, with the note “*Lt.*”

Charts affected.—No. 3543, Approches to Singapore.

“ 1355, Malacca strait.

“ 2660a, China sea, southern portion—western sheet.

Publications.—List of Lights, Part VI, 1921, No. 795a.

China Sea Pilot, Vol. III, 1912, page 53.

Authority.—Hydrographic Department. (H. 6381-21.)

CELEBES—MAKASSAR STRAIT.

Makassar Road, Mariso Light—Amended Limit of Sector.

No. 492 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1915 of 1921), are republished:—

Former Notice.—No. 696 of 1921. (*This Office No. 260 of 1921.*)

Position.—Mariso lighthouse, lat. $5^{\circ} 10'$ S., long $119^{\circ} 25'$ E. (*approx.*).

Details.—The eastern limit of the north-western *white* sector of this *occulting white* and *red* light is the bearing 165° , and not 140° as shown on the charts.

Charts affected.—No. 2662, Plan of Makassar road

1293, Approach to Makassar.

Publication.—List of Lights, Part VI, 1921, No. 1017.

Authority.—Hague Notice No. 2090 of 1921. (H. 6424-21.)

JAPAN—HONSHU, SOUTH COAST.

Ichiye Zaki (Itsiye Misaki)—Light established.

No. 493 (*first publication*).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1917 of 1921), are republished:—

Position.—Lat. $33^{\circ} 35' 00''$ N., long. $135^{\circ} 23' 42''$ E.

Abridged description.—Lt. Gp. Fl. (2) ev. 30 sec. 310 ft., vis. 25 m.

Characteristics:

Character.—*Group flashing white*, showing *two flashes every thirty seconds*, thus:

<u>2 flashes,</u>	<u>eclipse.</u>
8 sec.	22 sec.

Elevation.—310 feet (94^m5).

Visibility.—25 miles, from 313° , through north, to 145° .

Power.—36,000 candles.

Structure.—White octagonal concrete tower, 30 feet (9^m1) in height.

Charts affected.—No. 951, Osaki wan to Owashi wan.
" 2875, Naikai (Seto uchi) or Inland sea.
" 996, Kii suido to Tokyo.
" 1648, Osumi kaikyo to Oshima.
" 2347, Honshū, Kiusiu, and Shikoku, etc.
" 2459, North-west Pacific ocean, etc.
" 781, Pacific ocean—north-west sheet.

Publications.—List of Lights, Part VI, 1921, No. 2014.

Japan Pilot, 1914, page 127.

Authority.—Tokyo, Department of Communications, Notice No. 1588 of 1921. (H. 6492-21.)

AUSTRALIA—EAST COAST, INNER BARRIER ROUTE.

Meaburn Rock Buoy—Further information with regard to position.

No. 494 (first publication).—

Former Notice.—No. 195 of 1919.

Subject.—The position of Meaburn Rock Buoy relative to Meaburn Rock is as described hereunder.

Position.—At a distance of 2 cables bearing 130° (S. 57° E. Mag.) from Meaburn Rock.

Lat. $17^{\circ} 34'$ S., long. $146^{\circ} 10'$ E.; on Chart No. 2350.

Description.—A red cask buoy.

Charts affected.—No. 2350, Double Point to Cape Grafton.

" 2763, Coral Sea and Great Barrier Reefs, sheet 1.

" 2759a, Australia, northern portion.

" 780, Pacific Ocean, south-west sheet.

Publications.—Australia Pilot, Vol. IV, 1917, page 190.

Authority.—Melbourne Notice No. 22 of 1921.

AUSTRALIA—TORRES STRAIT, GREAT NORTH-EAST CHANNEL

Bramble Cay—Re-establishment of beacon postponed.

No. 495 (first publication).—

Former Notice.—No. 207 of 1921.

Subject.—The re-establishment of the beacon on Bramble Cay is postponed until further notice.

Position.—Lat. $09^{\circ} 08'$ S., long. $143^{\circ} 52'$ E.

Note.—Further notice will be given when the beacon has been re-established.

Authority.—Melbourne Notice No. 23 of 1921.

INDIA, WEST COAST.

Caution.—Danger to shipping.

No. 496 (first publication).—

Subject.—The Master of the SS. "West Cannon" reports having sighted, on the 4th December 1921, a large spar 3 feet in diameter, visible about 10 feet above water.

Position.—Lat. $8^{\circ} 42'$ N., long. $73^{\circ} 22'$ E.

Caution.—Mariners are hereby warned.

Charts affected.—No. 827, Vengurla to Cape Comorin.

" 748b, Indian Ocean, northern portion.

Authority.—Director of the Royal Indian Marine, Bombay, Notice No. 147M., dated 8th December 1921.

The 3rd December 1921.

GULF OF SIAM.

Aotinau (Manao) Bay—Caution with regard to Intended Aeroplane Target Practice.

No. 464 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1789 of 1921), are republished:—

Date of commencement.—1st November 1921.

Position.—North Horn, lat. $11^{\circ} 47' N.$, long. $99^{\circ} 47' E.$ (approx.).

Caution.—Notice is given that from the above date, target practice from Aeroplanes will take place in the vicinity of Aotinau bay and approaches. Vessels are warned not to enter the undermentioned area between sunrise and sunset whilst the practice is being carried out:—

Limits of danger area:—

(a) *On the North.*—By a line drawn from North Horn in a 071° direction for a distance of 7·33 miles.

(b) *On the South.*—By a line drawn from South Horn in a 135° direction for a distance of 6·75 miles.

(c) *On the East.*—By a line joining the eastern extremities of limits (a) and (b).

(d) *On the West.*—By a line joining North and South Horns.

Note.—Further Notice will be given when the target practice has been completed.

Charts temporarily affected.—No. 2719, Lem Tane to Ko Ta kut, 2414, Gulf of Siam.

Publication.—China Sea Pilot, Vol. III, 1912, page 133.

Authority.—Bangkok Notice No. 157 of 1921. (H. 5518-21.)

BAY OF BENGAL—BURMA.

Akyab Harbour—Caution with regard to Depths.

No. 465 (second publication).—The following particulars, etc., relative to the above, issued by the British Admiralty (No. 1814 of 1921), are republished:—

Position.—Savage island, lat. $20^{\circ} 05' N.$, long. $92^{\circ} 54' E.$ (approx.).

Caution.—Akyab harbour is reported to have shoaled considerably.

A note to this effect is to be inserted on the charts.)

Charts affected.—No. 1884, Arakan river. Akyab.

1369, Mayn river to Kyauk Pyu harbour.

Publication.—Bay of Bengal Pilot, 1910, pages 341, 342.

Authority.—The Director, Royal Indian Marine. (H. 6113-21.)

PERSIAN GULF.

Shatt al Arab Light-Vessel—Replaced on her station.

No. 466 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 132M. of 1921), are republished:—

Former Notice.—No. 119M. of 1921. (This Office No. 428 of 1921.)

Position.—Lat. $29^{\circ} 44\frac{1}{2}' N.$, long. $48^{\circ} 48\frac{1}{2}' E.$

Details.—The Shatt al Arab Light-Vessel, which was temporarily withdrawn for repairs and replaced by a light buoy, was stationed in her position on the 13th November 1921.

Charts which were temporarily affected.—No. 1253, Shatt al rbto,a Outer Ba Ar Faq.

„ 1235, Mouth of the Euphrates.

Authority.—The Commanding Officer, R. I. M. S. "Nearchus" Telegram, dated 13th November 1921.

BAY OF BENGAL, BURMA—BASSEIN RIVER ENTRANCE.

Diamond Island—Non-existence of wreck.

No. 467 (second publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 133M. of 1921), are republished:—

• *Former Notice—No. 29M. of 1921. (This Office No. 126 of 1921.)*

Position.—At a distance of about 5 miles, 136° , from Diamond island.
Lat. $15^{\circ} 48\frac{1}{2}'$ N., long. $94^{\circ} 20\frac{1}{4}'$ E.

Details.—The sunken wreck of a small native craft, in the above position has disappeared.

Charts affected.—No. 834, Bassein river and approaches.

“ 3772, Calventuras to Bassein river.

“ 823, Koronge Island to White point.

“ 829, Cocanada to Bassein river.

“ 830, Bassein river to Pulo Penang.

Authority.—The Principal Port Officer, Burma, dated 8th of November 1921.

BAY OF BENGAL—CHITTAGONG COAST.

South Patches light-vessel—To be temporarily replaced by a country brig.

No. 468-I (second publication).—

Subject.—The South Patches light-vessel will be withdrawn from her station on the 1st January 1922 and replaced early in February 1922.

During her absence a 54-ton country brig having “S.P.” painted in large letters on each side will be moored in the same position.

By day—She will carry a black ball on her main topmast head.

By night—She will exhibit two ordinary ship's riding lights, in a horizontal position, one at each foretop sail yardarm and will also burn a flare every half hour.

Position.—Lat. $21^{\circ} 29\frac{1}{2}'$ N., long. $91^{\circ} 37\frac{1}{4}'$ E.

Charts affected.—No. 829, Cocanada to Bassein river.

“ 859, Matla river to Elephant Point

“ 70, Bay of Bengal.

Publications.—List of Lights, Part VI, 1921, No. 630.

Bay of Bengal Pilot, 1910, page 329; Supplement No. 5 of 1920.

Authority.—Port Officer, Chittagong, Notice, dated 30th November 1921.

The 25th November 1921.

INDIA, EAST COAST—NEGAPATAM.

Alteration in Character of Light. •

No. 453 (third publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 51 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (This Office No. 403 of 1921.)

Subject.—The alteration in the character of the light at Negapatam will take place on or after the 15th February 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $10^{\circ} 45'$ N.

Longitude $79^{\circ} 51'$ E.

Character of Light.—White Flashing Acetylene Light, giving two quick flashes every six seconds, i.e., flash $\frac{1}{6}$ second, short darkness $1 \frac{1}{6}$ second, long darkness 4 seconds.

Description of Tower.—Masonry tower Painted White.

Height and Range.—About 80 feet above high water. Range 14 miles,

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

“ 71, Madras to Calimere Point.

“ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 203.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 551.

Authority.—Port Officer, Negapatam.

INDIA, EAST COAST—BIMLIPATAM.

Alteration in Character of Light.

No. 454 (*third publication*).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 52 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the light at Bimlipatam will take place on or after the 1st April 1922, from which date the present occulting light will be discontinued.

Position.—Latitude 17° 53' N.

Longitude 83° 27' E.

Character of Light.—White Flashing Acetylene Light, giving one single quick flash every 3 seconds, i.e., $\frac{1}{10}$ flash and $2\frac{7}{10}$ darkness.

Description of Tower.—Masonry Tower.

Height and Range.—About 35 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal,

“ 829, Cocanada to Bassein River.

“ 1424, Bimlipatam to Gopalpore.

“ 1711, Narsapur Point to Bimlipatam.

Publications.—Bay of Bengal Pilot of 1910, page 252.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 575.

Authority.—Port Officer, Vizagapatam.

INDIA, EAST COAST—PAMBAN.

Alteration in Character of Light.

No. 455 (*third publication*).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 53 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921.*)

Subject.—The alteration in the character of the Light at Pamban will take place on or after the 1st March 1922, from which date the present occulting light will be discontinued.

Position.—Latitude $9^{\circ} 17' N.$

Longitude $79^{\circ} 13' E.$

Character of Light.—White flashing acetylene Light giving three quick flashes every nine seconds, i.e., $\frac{3}{10}$ flash, $1\frac{5}{16}$ short darkness and $5\frac{1}{16}$ long darkness.

Description of Tower.—Masonry Tower painted white

Height and Range.—About 97 feet above high water. Range 14 miles.

Arc of Illumination.—All direction seaward.

Charts affected.—No. 70, Bay of Bengal.

„ 68a, Palk Strait and Gulf of Manar.

„ 69, Gulf of Manar—Pamban Pass.

„ 3581, Approaches to Pamban Pass.

„ 828, Cape Comorin to Cocanada.

Publications.—Bay of Bengal Pilot of 1910, page 182.

List of Lighthouses and Light vessels in British India.

List of Lights, Part VI, 1921, No. 542.

Authority.—Port Officer, Pamban.

INDIA, EAST COAST—MASULIPATAM.

Alteration in Character of Light.

No. 456 (third publication).—The following particulars, etc., relative to the above, issued by the Presidency Port Officer, Madras, in Notice to Mariners (No. 54 of 1921), are republished:—

Former Notice.—No. 38 of 1921, dated 23rd September 1921. (*This Office No. 403 of 1921*)

Subject.—The alteration in the character of the light at Masulipatam will take place on or after the 15th March 1922 from which date the present occulting light will be discontinued.

Position.—Latitude $16^{\circ} 10' N.$

Longitude $81^{\circ} 11' E.$

Character of Light.—White flashing Acetylene Light, giving three quick flashes every 9 seconds, i.e., $\frac{3}{10}$ flash $1\frac{5}{16}$ short darkness and $5\frac{1}{16}$ long darkness.

Description of Tower.—White Masonry tower.

Height and Range.—About 33 feet above high water. Range 11 miles.

Arc of Illumination.—All direction seaward

Charts affected.—No. 70, Bay of Bengal.

„ 828, Cape Comorin to Cocanada.

„ 1894, Ramapatnam to Narsapur Point.

Publications.—Bay of Bengal Pilot of 1910, page 273.

List of Lighthouses and Light Vessels in British India.

List of Lights, Part VI, 1921, No. 571.

Authority.—Port Officer, Cocanada.

GULF OF ADEN—JUBITI NORTHERN APPROACH.

Gulf of Tajura—Information with regard to Buoyage.

No. 457 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 127M. of 1921), are republished :—

(1) Mashali Island Buoy re-established.

Former Notice.—No. 106M. of 1921. (*This office No. 383 of 1921.*)

Position.—At a distance of about $2\frac{1}{4}$ miles 271° from the Mashah Island Light-house and about $\frac{1}{4}$ of a mile, 185° from its former charted position.

Lat. $11^{\circ} 43' N.$, long. $43^{\circ} 10\frac{1}{4}' E.$

Details.—The black buoy which was previously reported as missing, *vide* N to M quoted above, has now been replaced in the above position.

Remarks.—This buoy is now useless as an aid to navigation and if relied on will lead vessels into difficulties.

(2) Jubiti Bay—Buoy removed.

Position.—About 2 Cables Northward of Plateau du Heron.

Lat. $11^{\circ} 36' 50'' N.$, long. $43^{\circ} 09' 35'' E.$

Details.—The white can buoy in the above position has been removed or has sunk.

Chart affected.—No. 253, Jebel Jan to Shab Kulangarit with Plan.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, pages 524-526.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—BERBERA.

Shaab Pier Light extinguished.

Caution with regard to approaching Berbera.

No. 458 (*third publication*).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 128M. of 1921), are republished :—

(1) Shaab Pier Light extinguished.

Position.—On Shaab Pier head.

Lat. $10^{\circ} 26\frac{1}{4}' N.$, long. $45^{\circ} 1\frac{1}{4}' E.$

Details.—The fixed white and green light visible 2 miles, exhibited from the Shaab Pier head is no longer exhibiting and should be expunged from the publications.

(2) Caution with regard to approaching Berbera.

Position.—Of the fixed white light near the old light-house.

Lat. $10^{\circ} 25' N.$, long. $44^{\circ} 59' E.$

Details.—Great care is necessary for a stranger approaching Berbera at night as owing to the frequent dust storms the visibility of the fixed white light from a mast near the old light-house is not to be depended on, further more during the trading season (from October to March) dhows frequently anchor close in shore in the vicinity of the light-house making it very difficult at times to distinguish between their anchor lights and the fixed light.

Chart affected.—No. 3530, Berbera.

Publications.—List of Lights, Part VI, 1921, No. 257.

Indian List of Lights, 40th issue, 1921, No. 2.

Red Sea and Gulf of Aden Pilot, 1921, page 542.

Authority.—The Port Officer, Aden, dated 19th October 1921.

GULF OF ADEN—ZEILA ROADSTEAD AND APPROACHES.

Caution with regard to Discoloured water.

No. 459 (third publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 129M. of 1921), are republished:—

Position.—Aibat island beacon, Lat. $11^{\circ} 31'$ N., long. $43^{\circ} 28\frac{1}{2}'$ E.

Caution.—Discoloured water is reported to exist westward of a line drawn from the white beacon on Aibat island, in a direction 133° (S. 44° E. Mag.) to the southern point of Sea Gull shoal.

The water is very much discoloured making it impossible to distinguish between the deep and shoal water, as may easily be done to seaward and in the most of the adjacent bays.

Variation.— 3° W.

Charts affected.—No. 919, Plan of Zeila roadstead.

„ 253, Jebel Jan to Shaab Kulangarit.

„ 8e, Red Sea Sheet-V.

„ 6b, Gulf of Aden, Western portion.

Publication.—Red Sea and Gulf of Aden Pilot, 1921, page 532.

Authority.—The Port Officer, Aden, dated 19th October 1921.

RED SEA.

Telegraph Cable Buoys removed.

No. 460 (third publication).—The following particulars, etc., relative to the above, issued by the Director of the Royal Indian Marine, Bombay, in Notice to Mariners (No. 130M. of 1921), are republished:—

Former Notice.—No. 115-M. of 1921. (*This office No. 413 of 1921.*)

Positions.—(1) Lat. $29^{\circ} 25' 00''$ N.

Long. $32^{\circ} 33' 30''$ E.

(2) Lat. $29^{\circ} 22' 00''$ N.

Long. $32^{\circ} 39' 30''$ E.

(3) Lat. $28^{\circ} 32' 30''$ N.

Long. $33^{\circ} 04' 00''$ E.

(4) Lat. $28^{\circ} 29' 00''$ N.

Long. $33^{\circ} 13' 30''$ E.

(5) Lat. $28^{\circ} 16' 00''$ N.

Long. $33^{\circ} 31' 00''$ E.

(6) Lat. $28^{\circ} 04' 00''$ N.

Long. $33^{\circ} 37' 00''$ E.

(7) Lat. $27^{\circ} 56' 30''$ N.

Long. $33^{\circ} 45' 00''$ E.

Details.—The buoys in the above mentioned positions which were temporarily laid in connection with the telegraph cable work in the Red Sea, have been withdrawn.

Charts which were temporarily affected.—No. 2838, Strait of Jubal.

" 757, Gulf of Suez.

" 8a, Red Sea—Sheet I.

" 2523, Red Sea.

Authority.—The Eastern Telegraph Company, Bombay, dated 24th October 1921.

BAY OF BENGAL BURMA—BASSEIN RIVER ENTRANCE.

Diamond island—Baroni rock buoy.

No. 461 (third publication).—

Former Notice.—No. 127 of 1921.

Subject.—The lighted gas buoy marking the Baroni rock has been replaced by an unlighted spherical buoy painted black with a white horizontal band.

Charts affected.—No. 834, Bassein river and approaches

" 3772, Calventuras to Bassein river.

" 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447; Supplement No. 5 of 1920.

Authority.—Port Officer, Bassein, Burma, Notice, dated 17th November 1921.

BAY OF BENGAL—BURMA COAST.

Bassein river entrance—Buoy established.

No. 462 (third publication).—

Subject.—A black can buoy has been laid in 4 fathoms L. W. O. S. with Diamond island flagstaff 260°, distant 4 cables.

Position.—Lat. 15° 51' 50" N., long. 94° 17' 20" E.

Charts affected.—No. 834, Bassein river and approaches.

" 3772, Calventuras to Bassein river.

" 823, Koronge island to White point.

Publication.—Bay of Bengal Pilot, 1910, page 447.

Authority.—Port Officer, Bassein, Burma, Notice, dated 18th November 1921.

BAY OF BENGAL—BURMA COAST.

Derelict Brigantine "Adrosbandooli" salved.

No. 463 (third publication).—

Former Notice.—No. 432 of 1921.

Subject.—The derelict Brigantine "Adrosbandooli" reported in the above Notice as "Hydrobandooli" has since been salved and is no longer a danger to shipping.

Authority.—Principal Port Officer, Burma, Rangoon, telegram, dated 24th November 1921.

A. E. HAROLD, CAPTAIN, D.S.O., R.I.M.,
Port Officer of Calcutta.



The Calcutta Gazette

WEDNESDAY, JULY 6, 1921.

SUPPLEMENT.

OFFICIAL PAPERS.

[*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of five rupees per annum if delivered in Calcutta, or seven rupees and eight annas if sent by post.]*

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CALCUTTA IMPROVEMENT TRUST.

Notice under section 63 (5) of Bengal Act V of 1911, as amended by Bengal Act III of 1915.

NOTICE is hereby given that the Board of Trustees for the Improvement of Calcutta have applied to the Local Government for sanction to the plans of three alignments known as Alignments Nos. I (South-East Section), II (North-East Section) and III (North-West Section) (Burraabazar), which were originally published in the issues of the *Calcutta Gazette* of 22nd January 1919, 11th December 1918 and 8th January 1919, respectively.

C. H. BOMPAS, Chairman.

CALCUTTA, the 18th June 1921.

IRRIGATION DEPARTMENT

Statement showing heights over mean sea-level and low water in the May 1921, and the highest reading of each gauge over

DATE	RIVER GANGES.										
	Mirzapur. Zero of gauge 206'22 ft.			Benares. Zero of gauge 196'80 ft.		Buxar. Zero of gauge 167'55 ft.		Dinapore. Zero of gauge 184'23 ft.		Monghyr. Zero of gauge is at m.s.n.m. level.	
	Distance in miles.	From Allahabad, 68.	From Allahabad, 134.	From Mirzapur, 48.	From Benares, 90.	From Benares, 177.	From Buxar, 87.	From Benares, 287.	From Dinapore, 110.		
	Highest gauge reading.	2nd September 1916. 263'91.		2nd September 1916. 244'30.		3rd and 4th Septem- ber 1916. 202'30.		5th September 1901. 169'73.		8th September 1901. 129'60.	
	Lowest gauge reading.	28th June 1897. 187'30.		1st May 1877. 182'80.		10th to 14th May 1914. 160'80.		20th April 1912. 135'12.		29th April to 6th May 1914. 96'00.	
		Height over zero of gauge.	Height over mean sea-level.	Height below zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.
1	2	3	4	5	6	7	8	9	10	11	12
1st	6·29	212·51	3·67	193·13	0·17	167·38	4·30	138·53	99·00
2nd	6·29	212·51	3·75	193·05	0·17	167·38	4·20	138·43	99·00
3rd	6·25	212·47	3·75	193·05	0·25	167·30	4·20	138·43	99·00
4th	6·25	212·47	3·75	193·05	0·25	167·30	4·20	138·43	99·00
5th	6·25	212·47	3·75	193·05	0·25	167·30	4·20	138·43	98·90
6th	6·21	212·43	3·83	192·97	0·25	167·30	4·20	138·43	98·90
7th	6·21	212·43	3·83	192·97	0·25	167·30	4·20	138·43	98·90
8th	6·21	212·43	3·83	192·97	0·25	167·30	4·20	138·43	98·90
9th	6·21	212·43	3·92	192·88	0·33	167·22	4·20	138·43	98·90
10th	6·17	212·39	3·92	192·86	0·33	167·22	4·20	138·43	98·90
11th	6·17	212·39	3·92	192·86	0·33	167·22	4·20	138·43	98·90
12th	6·17	212·39	5·92	192·86	0·42	167·13	4·10	138·33	98·90
13th	6·12	212·34	3·92	192·86	0·50	167·05	4·10	138·33	99·00
14th	6·12	212·34	3·92	192·86	0·50	167·05	4·30	138·53	99·10
15th	6·12	212·34	4·00	192·80	0·50	168·05	4·30	138·53	99·20
16th	6·12	212·34	4·00	192·80	0·42	167·97	4·30	138·53	99·30
17th	6·08	212·30	4·00	192·80	0·42	167·97	4·30	138·53	99·40
18th	6·08	212·30	4·08	192·72	0·42	167·13	4·40	138·63	99·50
19th	6·08	212·30	4·08	192·72	0·42	167·13	4·80	139·03	99·60
20th	6·08	212·30	4·08	192·72	0·42	167·13	4·90	139·13	99·70
21st	6·04	212·26	4·08	192·72	0·42	167·13	5·00	139·23	99·90
22nd	6·04	212·26	4·17	192·63	0·38	167·22	5·10	139·33	100·10
23rd	6·04	212·26	4·17	192·63	0·38	167·22	5·10	139·33	100·10
24th	6·04	212·26	4·17	192·63	0·33	167·22	5·30	139·53	100·20
25th	6·00	212·22	4·17	192·63	0·33	167·22	5·50	139·73	100·40
26th	6·00	212·22	4·17	192·63	0·33	167·22	5·60	139·83	100·60
27th	6·00	212·22	4·25	192·55	0·25	167·30	5·90	140·13	100·90
28th	6·00	212·22	4·25	192·55	0·33	167·22	5·70	139·93	101·00
29th	6·00	212·22	4·25	192·55	0·25	167·30	5·60	139·83	101·20
30th	5·96	212·18	4·25	192·55	0·25	167·30	5·60	139·83	101·20
31st	5·96	212·18	4·33	192·47	0·33	167·22	5·70	139·93	101·10

The 2nd July 1921.

MENT, BENGAL.

rivers Ganges, Bhagirathi, Jalangi and Brahmaputra for the month of M.S.L. as well as the lowest gauge reading since 1876.

						RIVER BHAGI-SATHI.	RIVER JALANGI.		RIVER BRAHMAPUTRA.		
Rajmahal. Zero of gauge is at 56'319.		Rampur-Bosilia. Zero of gauge 1'51 ft.		Goalundo Zero of gauge is 4'896 ft. above mean sea-level.		Berbampore. Zero of gauge 32'499 ft.	Sarupganj. Zero of gauge 1'509 ft.	Gauhati. Zero of gauge - 125'18 ft.			
From Benares, 407.	From Monghyr, 120.	From Benares, 471.	From Rajmahal, 64.	From Benares, 591.	From Rampur- Bosilia, 120.						
15th August 1918. 88'46.		26th August 1879. 69'25.		28th August 1906 and 14th September 1916. 30'646		14th August 1890. 64'70.	25th September 1900. 35'03.		24th August 1888. 181'11.		
2nd May 1910. 54'02.		23rd April 1886. 37'62.		28th March 1910. 7'146.		19th to 24th April 1917. 32'40.	28th March 1915. 2'13.		9th February 1888. 142'46.		
Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.		
13	14	15	16	17	18	19	20	21	22	23	* 24
2'50	58'819	33'74	35'25	8'90	13'796	1'40	33'899	2'96	4'469	8'30	143'48
2'55	58'869	33'74	35'25	9'00	13'896	1'40	33'899	2'82	4'399	8'50	143'68
2'50	58'819	33'74	35'25	9'20	14'096	1'40	33'899	3'06	4'569	9'10	144'28
2'55	58'869	33'69	35'20	9'40	14'296	1'40	33'899	3'12	4'629	12'30	147'48
2'60	58'919	33'69	35'20	9'90	14'796	1'40	33'899	2'93	4'439	13'60	148'78
3'65	59'969	33'74	35'25	10'20	15'096	1'40	33'899	2'91	4'419	12'90	148'08
2'70	59'019	34'79	36'30	10'60	15'496	1'40	33'899	2'88	4'389	9'60	144'78
2'75	59'069	34'84	36'35	11'10	15'996	1'40	33'899	3'06	4'569	9'30	144'48
2'80	59'119	33'84	35'35	11'60	16'496	1'40	33'899	3'26	4'769	9'10	144'28
2'80	59'119	33'79	35'30	11'80	16'696	1'40	33'899	3'38	4'889	8'40	143'58
2'65	58'969	33'79	35'30	11'70	16'596	1'40	33'899	3'51	5'019	8'00	143'18
2'70	59'019	33'74	35'25	11'40	16'296	1'40	33'899	3'53	5'039	7'40	142'58
2'80	59'119	33'79	35'30	11'20	16'069	1'40	33'899	3'52	5'029	7'30	142'48
2'95	59'269	33'84	35'35	11'00	15'896	1'30	33'799	3'43	4'939	7'60	142'68
3'15	59'469	33'89	35'40	10'60	15'496	1'30	33'799	3'52	5'029	7'80	142'98
3'35	59'669	34'14	35'65	10'60	15'496	1'30	33'799	3'87	5'379	8'20	143'38
3'35	59'669	34'24	35'75	10'80	15'696	1'30	33'799	4'06	5'569	8'20	143'38
3'30	59'619	34'19	35'70	11'00	15'896	1'30	33'799	4'50	6'009	8'50	143'68
3'40	59'719	34'34	35'85	11'10	15'996	1'30	33'799	4'53	6'039	9'50	144'68
3'40	59'719	34'49	36'00	11'30	16'196	1'30	33'799	4'54	6'049	10'70	145'88
3'55	59'869	34'54	36'05	12'00	16'896	1'30	33'799	4'58	6'089	12'60	147'78
3'65	59'969	34'59	36'10	12'50	17'396	1'30	33'799	4'42	5'929	14'70	149'88
4'00	60'319	34'69	36'20	13'20	18'096	1'30	33'799	4'11	5'619	15'30	150'48
4'40	60'719	34'89	36'40	13'60	18'496	1'40	33'899	3'65	5'159	16'20	151'38
4'80	61'119	35'19	36'70	14'40	19'296	1'50	33'999	3'52	5'029	18'60	153'78
5'10	61'419	35'49	37'00	14'80	19'696	1'50	33'999	3'53	5'039	20'40	155'58
5'25	61'569	35'79	37'30	14'90	19'796	1'50	33'999	3'49	4'999	22'10	157'28
5'30	61'619	35'09	37'60	15'40	20'296	1'50	33'999	3'48	4'989	23'00	158'18
5'30	61'619	36'24	37'75	16'10	20'996	1'50	33'999	3'37	4'879	23'70	158'88
5'40	61'719	36'29	37'80	16'90	21'796	1'50	33'999	3'42	4'929	23'40	158'58
5'50	61'819	36'39	37'90	17'40	22'296	1'50	33'999	3'41	4'919	23'20	158'38

G. J. ST. C. SEDGLEY,
Under-Secretary
to the Government of Bengal.

List of prices of articles of food at Calcutta during the week ending Saturday, the 2nd July 1921.

Names of articles.	WHOLESALE PRICE PER MAUND.		RETAIL PRICE PER SEER.	
	From—	To—	From—	To—
Rice—				
Balam, coarse ...	7 5 0	7 8 0	0 3 3	0 3 6
" medium ...	7 12 0	8 0 0	0 3 9	0 4 0
Patnai, coarse ...	7 14 0	.....	0 3 3	0 3 6
" medium ...	8 0 0	8 2 0	0 3 9	0 4 0
* Nagra, coarse ...	8 2 0	.....	0 3 9	0 4 0
" medium ...	8 4 0	.....	0 4 0	0 4 0
Dudhkalma ...	8 2 0	.....	0 3 9	.....
Rangoon Boiled	.....	.....	0 3 0	.....
Kajla ...	.....	.....	0 2 9	.....
Wheat, Dudhia ...	6 14 0	.....	.....	.....
" Gangajali ...	.....	.....	.....	.....
" Jamali ...	6 7 0	.....	.....	.....
Gram, Patnai (whole) ...	6 4 0	6 10 0	0 2 9	0 3 0
dal ...	8 0 0	8 8 0	0 3 9	0 4 0
Mung " (Hari) ...	10 8 0	12 0 0	0 6 0	.....
" (Krishna) ...	8 0 0	8 4 0	0 5 0	.....
Arhar " ...	8 0 0	10 8 0	0 3 6	0 5 0
Masur " (split) ...	6 4 0	7 0 0	0 3 0	0 3 3
" (Khanri) ...	9 0 0	9 8 0	0 4 0	.....
Kalai " ...	7 0 0	7 8 0	0 3 3	.....
Salt ...	2 11 0	2 15 0	0 1 6	.....
Sugar (Brown Java) ...	20 0 0	.....	0 11 6	.....
Gur, Bheli ...	.....	.....	.....	.....
" Bhursut ...	.....	.....	.....	.....
" Date ...	.....	.....	.....	.....
Milk ...	8 0 0	.....	0 5 0	.....
Mustard Oil ...	23 0 0	25 0 0	0 11 0	0 12 0
Flour (Country) ...	9 0 0	.....	0 3 6	0 4 0
Atta No. 3 ...	6 0 0	.....	} 0 3 6	0 4 0
" 2½ ...	6 4 0	.....	
" B ...	9 8 0	.....	
Suji ...	10 0 0	11 0 0	0 5 0	.....
Ghee (Bhadwa, Matki, etc.) ...	86 0 0	.....	} 1 14 0	2 4 0
" [Patiram, Khurja, Ruto, Etwa (better kind), etc.] ...	78 0 0	80 0 0		
" (Lalli, Etwa, Sagar, etc.) ...	67 0 0	70 0 0		
Maize ...	4 12 0	5 0 0	.....	.....
Potatoes ...	7 0 0	7 8 0	0 3 6	0 4 0
Patal ...	.....	.....	0 2 0	0 3 0
Brinjal ...	.....	.....	0 2 0	.....
Onion ...	3 12 0	3 14 0	0 2 6	0 3 0
Fish, Rahu ...	32 0 0	35 0 0	1 4 0	.....
Mutton (2nd class) ...	.....	.....	0 14 0	1 0 0
Beef (2nd and 3rd classes) ...	.....	.....	0 4 0	0 8 0

N.B.—This is an abstract of prices of the following markets :—

Wholesale.—Chetla Hât, Ramkrishnapur Hât, Sealdah Fish and Milk Markets, Posta Bazar.

Retail.—Sir Stuart Hogg Market, Orphanaganj Market, Sova Bazar, Nutun Bazar, Raja Babu's Bazar, Kareya Bazar, Taltola Bazar and Jagu Babu's Bazar.

J. N. MITRA,

for Commissioner, Presidency Division.

CALCUTTA, the 2nd July 1921.

DISTRICT REPORTS ON WEATHER AND CROPS.

For the week ending on the 29th June 1921.

Summary.—During the week under report seasonable rain fell throughout the province. Ploughing for winter paddy and its transplantation are in progress. More rain is wanted for the operations in parts of Western Bengal. Sowing of broadcast autumn paddy is finished. The prospects of the standing crops are generally reported to be fair. The average price of common rice for the province is almost stationary as compared with that of the previous week.

Serial No.	District and subdivision.	Rainfall. Inches.	PRICE OF COMMON RICE, IN SEERS. PER RUPEE.		Character of the weather, condition of crops, etc.
			This week.	Previous week.	
1	2	3	4	5	6
1	24-PARGANAS	3·82	4 $\frac{1}{2}$	4 $\frac{1}{2}$	Sowing of jute and <i>aus</i> paddy is completed. Effect of weather on the crops is good. Fodder and water are sufficient.
	Diamond Harbour.	3·02	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
	Barrackpore	3·26	5 $\frac{1}{2}$	5	
	Barasat ...	(n)	5	5	
	Basirhat ..	4·25	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
2	NADIA ...	7·39	6 $\frac{1}{2}$	6 $\frac{1}{2}$	Weeding and sowing of paddy continue. Insufficient rainfall is affecting the standing crops in the Kushtia subdivision. Elsewhere the conditions are favourable.
	Kushtia ...	1·31	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
	Meherpur ...	3·75	6 $\frac{1}{2}$	6 $\frac{1}{2}$	
	Chuadanga ...	2·42	6 $\frac{1}{2}$	6 $\frac{1}{2}$	
	Ranaghat ...	5·56	6	6	
3	MURSHIDABAD	2·53	5 $\frac{1}{2}$	4 $\frac{1}{2}$	Prospects of standing crops are good. More rain is wanted for <i>aman</i> paddy transplantation. No large import or export. Fodder is sufficient.
	Lalbagh ...	3·79	5 $\frac{1}{2}$	4 $\frac{1}{2}$	
	Jangipur ...	3·16	6	6	
	Kandi ...	1·65	6	6	
4	JESSORE ...	4·08	7 $\frac{1}{2}$	7 $\frac{1}{2}$	Weather seasonable. Weeding is in progress. Damage to jute by insect pest is reported from Magura. Export of paddy is reported from Bongaon and Jhenidah subdivisions. Fodder and water are sufficient.
	Jhenidah ...	1·62	7 $\frac{1}{2}$	7 $\frac{1}{2}$	
	Magura ...	0·98	8	8	
	Narail ...	2·54	7	7	
	Bongaon ...	12·16	6 $\frac{1}{2}$	6 $\frac{1}{2}$	
5	KHULNA ...	3·36	6 $\frac{1}{2}$	7	Ploughing for <i>aman</i> paddy and sowing of seedlings continue. Fodder and water sufficient.
	Satkhira ...	7·24	6	7	
	Bagerhat ...	3·75	7 $\frac{1}{2}$	7 $\frac{1}{2}$	

(n) Not reported.

Serial No.	District and subdivision.	Rainfall.	PRICE OF COMMON RICE, IN SEERS, PER RUPEE.		Character of the weather, condition of crops, etc.
			This week.	Previous week.	
1	2	3	4	5	6
Inches.					
6	BURDWAN ...	2·51	5 $\frac{1}{4}$	5 $\frac{1}{2}$	Weather hot and cloudy. Ploughing and sowing, for winter paddy are in progress. More rain is wanted in Sadar for agricultural operations. The standing crops are doing well.
	Asansol ...	4·35	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
	Katwa ...	5·15	5 $\frac{1}{4}$	5 $\frac{1}{4}$	
	Kalna ...	4·80	5 $\frac{1}{4}$	5 $\frac{1}{2}$	
7	BIRBHUM ...	1·09	6	6	Ploughing for winter paddy continues. More rain is wanted for transplantation. Fodder is dear, but water sufficient.
	Rampurhat...	0·73	5 $\frac{1}{2}$	5 $\frac{1}{4}$	
8	BANKURA ...	2·48	5 $\frac{1}{4}$	6	Export of rice and paddy continues. Ploughing for and sowing of paddy continue. Transplantation has commenced. Cattle-disease is reported from Raniband. Export of rice and paddy continues.
	Vishnupur...	2·51	5	5 $\frac{1}{2}$	
9	MIDNAPORE	3·09	5 $\frac{1}{4}$	5 $\frac{1}{4}$	Weather hot. Sowing of broadcast winter rice continues. Transplantation of <i>aus</i> paddy is retarded in the Ghatal subdivision owing to insufficient rainfall, elsewhere the operations are progressing. The condition of jute and <i>bhadoi til</i> is fair. Fodder sufficient.
	Ghatal ...	9·90	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
	Tamluk ..	1·95	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
	Contai ...	3·32	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
10	HOOGHLY ...	1·54	5	5	Effects of weather on the growth of the crops are favourable. Fodder is sufficient. Price of rice is steady.
	Serampore ...	2·37	5	5	
	Arambagh ...	2·41	5 $\frac{1}{4}$	5 $\frac{1}{4}$	
11	HOWRAH ...	4·84	5 $\frac{1}{2}$	5 $\frac{1}{2}$	Weather is rainy. The prospects of the standing crops are good. Fodder and water sufficient.
	Ulubaria ...	1·75	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
12	RAJSHAHI (RAMPUR- BOALIA).	1·92	6 $\frac{1}{2}$	6	Prospects of standing crops are favourable. Fodder is sufficient.
	Naogaon ...	2·51	6	6	
	Nator ...	1·05	5 $\frac{1}{2}$	5 $\frac{1}{2}$	
13	DINAJPUR ...	1·94	6	6	The prospects of jute and <i>bhadoi</i> paddy are good. Fodder and water are sufficient.
	Thakurgaon	3·34	6	6	
	Balurghat ...	0·40	6 $\frac{1}{2}$	6 $\frac{1}{2}$	
14	JALPAIGURI	4·30	5 $\frac{1}{4}$	5	Weather seasonable. Condition of standing crops is bad. Transplantation of winter rice is going on.
	Alipur ...	1·90	5	5	

SUPPLEMENT TO THE CALCUTTA GAZETTE, JULY 6, 1921.

1361

Serial No.	District and subdivision.	Rainfall.	PRICE OF COMMON RICE, IN SEERS, PER RUPEE.		Character of the weather, condition of crops, etc.
			This week.	Previous week.	
1	2	3	4	5	6
Inches.					
15	DARJEELING	4.13	4½	4½	Potatoes and maize are being harvested. <i>Marua</i> is being transplanted. Cattle-disease is prevalent at places. Fodder and water are sufficient.
	Kurseong ...	11.72	5½	5½	
	Siliguri ...	13.27	5	5	
	Kalimpong...	4.75	5	5	
16	RANGPUR ...	4.02	5½	5½	Weather cloudy with heavy rains. Harvesting of <i>aus</i> paddy and jute is going on. Transplantation of winter paddy is progressing. Prospects of standing crops are good. Price of rice is stationary. Fodder and water are sufficient.
	Nilphamari...	2.34	6	6	
	Kurigram ...	2.25	5½	5½	
	Gaibandha ..	1.61	5½	5½	
17	BOGRA ...	1.90	6	6	Weeding of <i>aus</i> paddy continues. Preparation of land for winter paddy is going on.
18	PABNA ...	2.34	5¾	5¾	Prospects of standing crops are good. Fodder is sufficient.
	Sirajganj ...	0.78	5½	5½	
19	MALDA ...	2.30	6	6	Weather hot and cloudy. Lands are being prepared for winter paddy. Prospects of jute and <i>bhadoi</i> paddy are not good. Fodder and water are sufficient.
20	COOCH BEHAR	4.25	5½	5½	Weather seasonable. Transplantation of <i>haimantik</i> seedlings and harvesting of <i>bitri</i> paddy are going on. Prospects of standing crops are not quite favourable. Cattle-disease is reported from Mathabhanga subdivision. Fodder is sufficient.
21	DACCA ...	1.89	6	6	Cloudy weather is not favourable for agricultural operations. Harvesting of <i>aus</i> crop and steeping of jute are going on. Fodder is sufficient.
	Manikganj...	1.87	6½	6½	
	Narayanganj	1.50	6½	6½	
	Munshiganj (a)	(n)	(n)	(n)	
22	MYMENSINGH	1.25	5¾	6	Weather cloudy. Effect of weather on crops is good. Harvesting of <i>aus</i> paddy and jute has commenced and transplantation of winter paddy is going on. Prospects of standing crops are fair. Cattle-disease is reported from Netrakona. Fodder and water are sufficient.
	Jamalpur ...	1.67	7	7	
	Tangail ...	2.14	5½	5½	
	Netrakona ...	2.96	7	7	
	Kishorganj...	1.25	7½	7½	

(a) Munshiganj being very near to Dacca and Narayanganj, its rainfall statistics are not quoted. To give information regarding the northern part of the district, rainfall figures for Kapasia thana are reported here.

(n) Not reported.

Serial No.	District and subdivision.	Rainfall. Inches.	PRICE OF COMMON RICE, IN SEERS, PER RUPEE.		Character of the weather, condition of crops, etc.
			This week.	Previous week.	
1	2	3	4	5	6
23	FARIDPUR ...	0·95	6½	{ 6½ 5½ *	Harvesting of <i>til</i> is almost finished. Prospects of standing crops are good. Fodder is sufficient.
	Goalundo ... (Rajbari).	1·24	5¾	5¾	
	Madaripur ...	2·14	6¾	7	
	Gopalganj (a)	2·29	7⅓	7½	
24	BAKARGANJ (BARISAL).	2·06	6¼	6½	Weather rainy. Prospects of standing crops are good. Fodder and water are sufficient.
	Pirojpur ...	4·12	6	6¼	
	Patuakhali ...	4·07	6½	6½	
	Dakshin Sha- bazpur (Bhola).	2·58	6	6½	
25	CHITTAGONG	(n)	{ 6½ 6½ *	{ 6 6½ *	Cultivation of <i>aus</i> and sowing of <i>aman</i> paddy are in progress. Prospects of standing crops are fair. Fodder is sufficient. <i>Panga</i> salt is selling at 14 and 10 seers per rupee at Sadar and Cox's Bazar respectively. Cattle-disease is reported from Cox's Bazar, Ramu and Raozan.
	Cox's Bazar	10·43	6	6	
26	TIPPERA ... (COMILLA).	5·15	5⅔	5⅔	Weather rainy. Prospects of standing crops are not favourable. Rinderpest is reported from Brahmanbaria subdivision.
	Brahman- baria.	0·09	5⅔	5⅔	
	Chandpur ...	1·09	6	6	
27	NOAKHALI ...	1·99	6	6	Weather rainy. Prospects of standing crops are good. Fodder and water are sufficient. Cattle disease is reported from Ramgati thana.
	Feni ...	(n)	(n)	(n)	
28	CHITTAGONG HILL TRACTS.	2·57	5½	5½	Weather rainy. Prospects of <i>jhum</i> paddy are good. Plough cultivation continues. Cattle-disease is reported from Rangamati. Fodder is sufficient.
29	TRIPURA STATE.	1·49	5⅔	5⅔	Condition of cattle is good.

* Burma rice.

(n) Not reported.

(a) The rainfall at Haridaspur, which is very near to Gopalganj, is shown here.

J. C. Roy,
for Director of Agriculture, Bengal.

**Statement showing the daily gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge.	Value of zero referred to P. W. D. datum.	Height above P. W. D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.		Fall.	1920.	1919.	HEIGHT ABOVE P. W. D. DATUM ON SAME DATE IN—	Remarks.
						Rise.	Fall.					
Monghyr	24th June 1921	6 A.M. ...	101.70'	0.00'	101.70'	0.30'	...	102.40'	113.00'			
Rajmahal	24th " "	6 " ...	6.70'	56.319'	63.019'	0.10'	...	63.019'	69.319'			
Goalundo	24th "	8 hours ...	20.40'	4.896'	25.296'	...	0.30'	23.496'	24.96'			
Gauhati	24th "	8 A.M. ...	20.40'	135.18'	155.58'	...	0.20'	159.38'	174.76'			
Serajganj	24th "	12 hours ...	38.70'	.1509'	.40.209'	...	0.20'	38.409'	37.929'			
Dibrugarh	24th "	9 A.M. ...	15.60'	314.18'	329.78'	Steady	336.18'	337.98'				
Bhairab Bazar	.....	...	...	...	...	...	...	...	...	...	...
Chandpur	24th June 1921	9 hours ...	11.00'	1.61'	12.61'	Steady	11.11'	11.11	11.11			
Fenchuganj	24th "	7 " ...	30.05'	...	...	...	0.10'	23.50*	17.95*			
Sabhar	24th "	7 A.M. ...	25.30'	-8.62'	16.68'	...	0.10'	13.08'	13.88			
Swarupganj	24th "	6 " ...	5.97'	1.509'	7.479'	0.20'	...	5.999'	12.639'			
Edilpur	24th "	6 " ...	7.83'	92.58'	100.41'	1.83'	...	95.58'	102.58			
Narayanganj	24th "	" ...	20.73'	-5.59'	15.14'	...	0.27'	11.99'	11.91			
Madaripur Bil Route	Takerhat	6 A.M. ...	10.30'	-0.599'	9.701'	Steady	8.001'	7.901'				

* Reading on gauge.

**Statement showing the daily gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge,	Value of zero referred to P.W.D. datum.	Height above P.W.D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.		HEIGHT ABOVE P.W.D. DATUM ON SAME DATE IN 1919.	Remarks.
						Bias.	Fall.		
Ganges	25th June 1921	6 A.M. ...	102'30"	0'03'	102'30	0'60'	...	102'60'	113'60
	25th " "	6 " ...	7'50"	56'319'	63'819'	0'80'	...	63'319'	70'069'
	25th "	8 hours ...	20'00"	4'896'	24'896'	...	0'40'	24'996'	26'096'
Brahmaputra	25th "	8 A.M. ...	20'50"	136'18"	155'68"	0'10"	...	160'28"	175'76
	25th "	12 hours ...	38'60"	1'509"	40'109	...	0'10"	38'809"	38'509"
	25th "	9 A.M. ...	16'50"	314'18"	330'68"	0'90"	...	335'28"	338'18"
Meghna	Bhairab Bazar .....		...	...	...	...	...	...	...
	25th June 1921	10 hours ...	10'75"	1'61"	12'36"	...	0'25"	10'61"	11'61"
	25th "	7 " ...	29'80"	...	...	...	0'25"	23'86"	18'30"
Dhaleswari	25th "	7 A.M. ...	25'10"	-8'62"	16'48"	...	0'20"	13'88"	14'38"
	Swarupganj ...		6 " ...	6'87"	1'509"	8'379"	0'90"	...	5'429"
	Edilpur ...		6 " ...	8'50"	92'58"	101'08"	0'67"	...	94'83"
Lakhya	25th "	...	20'50"	-5'59"	14'91"	...	0'23"	11'99"	12'59"
	25th "	6 A.M. ...	10'05"	-0'599"	9'451"	...	0'25"	7'901"	8'001"
	Madaripur Bil Route Takerhat ...		...	...	...	...	...	...	...

* Reading on gauge.

**Statement showing the daily gauge readings on certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge,	Value of zero referred to P. W. D. datum.	Compared with previous day's height,		Fall.	1920.	1919.	Remarks.
					Rise.	Fall.				
Ganges	26th June 1921	6 A.M.	104.50'	0.00'	104.50'	2.20'	...	103.10'	114.20'	
	26th " "	6 "	7.80'	56.319'	64.119'	0.30'	...	63.519'	70.896'	
	26th " "	8 hours	19.90'	4.896'	24.796'	...	0.10'	24.496'	26.796'	
Brahmaputra	26th " "	8 A.M.	20.70'	135.18'	155.88'	0.20'	...	161.08'	176.36'	
	26th " "	12 hours	38.20'	1.504'	39.709'	...	0.40'	39.309'	39.309'	
	26th " "	9 A.M.	16.50'	314.18'	330.68'	Steady		336.38'	336.48'	
Meghna	Bhairab Bazar...	"	"	"	"	"	...	...	...
	Chandpur	26th June 1921	11 hours	10.50'	1.61'	12.11'	...	0.25'	10.61'	12.36'
	Venchuganj	26th " "	7 hours	29.70'	...	...	0.10'	24.00"	19.00"	
Dhaleswari	Sabhar	26th " "	7 A.M.	24.80'	-8.62'	16.18'	...	0.30'	14.08'	14.78'
Bhagirathi	Swarupganj	26th " "	6 "	7.52'	1.509'	9.029'	0.65'	...	5.229'	10.599'
Damodar	Edilpur	26th " "	6 "	7.17'	92.58'	99.75'	...	1.33'	95.91'	99.08'
Lakhyia	Narayanganj	26th " "	6 "	20.33'	5.59'	14.74'	...	0.17'	12.16'	13.14'
Madaripur Bill Route	Takerhat	26th " "	6 A.M.	9.95'	-0.599'	9.351'	...	0.10'	8.101'	8.201'

^a Reading on gauge.

**Statement showing the daily gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge.	Value of zero referred to P.W.D. datum.	Height above P.W.D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.	HEIGHT ABOVE P.W.D. DATED ON SAME DATE IN- RIVER.	Remarks.
				Rise.	Fall.	1920.	1919.	
Monghyr	... 27th June 1921	6 A.M.	106'70"	0'00"	106'70"	2'20"	...	114'70"
Rajmahal	... 27th "	6 "	8'80"	56'319"	65'119"	1'00"	...	71'619"
Goalundo	... 27th "	8 hours	19'90"	4'896"	24'796"	Steady	24'896"	27'596"
Ganhati	... 27th "	8 A.M.	20'90"	135'18"	156'08"	0'20"	...	161'48"
Serajganj	... 27th "	12 hours	38'40"	1'509"	39'909"	0'20"	...	39'909"
Dibrugarh	... 27th "	9 A.M.	16'70"	314'18"	330'88"	0'20"	...	339'38"
Bhairab Bazar	...	...	...	...	...	...	...	...
Chandpnr	... 27th June 1921	12-30 hours	10'25"	1'61"	11'86"	...	0'25"	10'36"
Fenchuganj	... 27th "	7 "	29'40"	...	...	...	0'30"	24'10"
Dhaleswari	... Sabbar	7 A.M.	24'70"	-8'62"	16'08"	...	0'10"	14'18"
Bhagirathi	... Swarupganj	7 "	7'94"	1'509"	9'449"	0'42"	...	5'149"
Damodar	... Edilpur	6 "	7'75"	92'58"	100'33"	0'58"	...	96'24"
Lakhya	... Narayanganj	6 "	20'17"	-5'59"	14'58"	...	0'16"	12'12"
Madaripur Bil	Route Takerhat	6 A.M.	9'90"	-0'599"	9'301"	0'05"	8'201"	8'501"

* Reading on gauge.

**Statement showing smooth gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date	Hour	Reading on gauge,	Value of zero referred to P. W. D. datum.	Height above P. W. D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.		Remarks.
						Rise.	Fall.	
Ganges	Moughlyr	28th June 1921	6 A. M. ...	108'20"	0'00'	108'20"	1'50"	104'50 115'20
	Rajmahal	"	6 " "	9'20"	56'319"	65'519"	0'40"	64'419" 72'219"
	Goalundo	"	8 hours ...	19'70"	4'896"	24'596"	... 0'20"	25'196" 27'996"
Brahmaputra	Gauhati	28th "	8 A. M. ...	21'60"	135'18"	156'78"	0'70"	162'18" 176'46"
	Serajganj	"	12 hours ...	38'10"	1'509"	39'609"	..." 0'30"	40'309" 40'109"
	Dibrugarh	"	9 A. M. ...	16'90"	314'18"	331'08"	0'20"	338'78" 334'88"
Meghna	Bhairah Bazar	....	...	...	...	...	...	...
	Chandpur	28th June 1921	13 hours ...	10'00"	1'61"	11'61"	..." 0'25"	10'11" 12'94"
	Fouchinganj	"	7 "	29'35"	...	...	..." 0'05	24'10" 20'00"
Dhaleswari	Sabbar	28th "	7 A. M. ...	24'50"	—8'62"	15'88"	0'20"	14'38" 15'68"
Bhagirathi	Swarupganj	28th "	6 " "	8'13"	1'509"	9'639"	0'19" ...	5'289" 9'479"
Damodar	Edilpur	"	6 " "	9'17"	92'58"	101'75"	1'42" ...	96'24" 97'58"
Lakhya	Narayanganj	28th "	6 " "	20'04"	—5'59"	14'45"	..." 0'13"	12'53" 13'49"
Madarpur Bil Route	Takerhat	28th "	6 A. M. ...	9'90"	—0'599"	9'301"	Steady	8'201" 8'701"

^a Reading on gauges.

**Statement showing the daily gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge.	Value of zero referred to P. W. D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.		HEIGHT ABOVE P. W. D. DATUM ON SAME DATE IN 1919.		Remarks.
					Blss.	Pall.	1920.	1919.	
Ganges	Monghyr ...	29th June 1921	6 A.M. ...	109.90'	0.00'	1.70'	105.70'	115.10'	
	Rajmahal ...	29th .. "	6 ..	11.40'	56.319'	2.20'	...	64.969'	72.619'
	Goalundo ...	29th .. "	8 hours ...	19.60'	4.896'	24.496'	0.10'	25.796'	27.196'
Brahmaputra	Ganhati ...	29th .. "	8 A.M. ...	21.90'	135.18'	157.08'	0.30'	...	163.08'
	Serajganj ...	29th .. "	12 hours ...	37.90'	1.509'	39.409'	...	0.20'	41.009'
	Dibrugarh ...	29th .. "	10 A.M. ...	16.50'	314.18'	330.68'	0.40'	337.98'	334.23'
Meghna	Bhairab Bazar ..	.....	....	...	...	...	...	...	....
	Chandpur ...	29th June 1921	13.30 hours	9.92'	1.61'	11.53	...	0.08'	10.36'
	Fenchuganj ...	29th .. "	7 ..	29.25'	...	...	0.10'	24.70**	12.61'
Dhaleswari	Sabhar ...	29th .. "	7 A.M. ...	24.30'	-8.62'	15.68'	...	0.20'	14.68'
Bhagirathi	Swarupganj ...	29th .. "	6 ..	8.02'	1.509'	9.529'	...	0.11'	5.159'
Damodar	Edilpur ...	29th .. "	6 ..	9.50'	92.58'	102.08'	0.33'	...	97.08*
Lakhya	Narayanganj	29th .. "	..	19.83'	-5.59'	14.24'	...	0.21'	12.53'
Madaripur Bil Route	Takerhat ...	29th .. "	6 A.M. ...	9.80'	-0.599'	9.201'	...	0.10'	8.301'

* Reading on gauge.

**Statement showing the daily gauge readings of certain rivers at the stations named below for the week ending Thursday,
the 30th June 1921.**

Name of river and place where readings are taken.	Date.	Hour.	Reading on gauge,	Value of zero referred to P. W. D. datum.	Height above P. W. D. datum.	COMPARED WITH PREVIOUS DAY'S HEIGHT.		HEIGHT ABOVE P. W. D., DATUM ON SAME DATE IN 1916.	Remarks.
						Rise.	Fall.		
Monghyr	... 30th June 1921	6 A.M. ...	110·10'	0·00'	110·10'	0·20'	...	107·60'	114·50'
Ganges	... Rajmahal ... 30th " "	6 " ...	12·95'	56·319'	69·269'	1·55'	...	66·019'	72·719'
Goalundo	... 30th " "	8 hours ...	19·60'	4·896'	24·496'	Steady		26·496'	24·496'
Brahmaputra	Gauhati ... 30th " "	8 A.M. ...	22·30'	135·18'	157·48'	0·40'	...	164·18'	176·16'
	Serajganj ... 30th " "	12 hours ...	37·80'	1·509'	39·309'	...	0·10'	41·309'	40·409'
Dibrugarh	... 30th " "	10·26 A.M.	18·00'	314·18'	332·18'	1·50'	...	337·68'	333·58'
Meghna	Bhairab Bazar ... 30th " "	...	...	...	...	...	...	...	...
	Chandpur ... 30th June 1921	14·30 hours	9·50'	1·61'	11·11'	...	0·42'	10·86	12·36'
	Fenchuganj ... 30th " "	7 " ...	29·20'	...	...	...	0·05'	25·30'	20·60"
Dhaleswari	... Sabhar ... 30th " "	7 A.M. ...	24·20'	-8·62'	15·58'	...	0·10'	15·08'	16·28'
Bhagirathi	... Swarupganj ... 30th " "	6 " ...	7·11'	1·509'	8·619'	...	0·91'	5·149'	7·869'
Damodar	... Edilpur ... 30th " "	6 " ...	8·17'	92·58'	100·75'	...	1·33'	95·83'	98·08'
Lakhya	... Narayanganj 30th " "	6 " ...	19·83'	-5·59'	14·24'	Steady		13·41'	12·99'
Madarpur Bil Route	Takorhat ... 30th " "	6 " ...	9·70'	-0·599'	9·101'	...	0·10'	8·501'	8·601'

* Reading on gauge

**Statement showing the gauge readings at Dacca Water-works Station
on the river Buriganga for the week ending the 25th June 1921.**

Date,	At 7 A.M.	AT HIGHEST WATER,		AT LOWEST WATER,		At 6 P.M.	Remarks,
		Time,	Readings,	Time,	Readings,		
1921. 19th June	62'7	...	...	...	...	62'7	
20th "	62'8	...	...	...	...	62'85	
21st "	62'85	...	...	...	...	62'9	
22nd "	62'9	...	...	...	...	62'9	
23rd "	62'95	...	...	...	...	63'0	
24th "	63'0	...	...	...	...	62'95	
25th "	62'8	...	...	...	...	63'7	

Notable high and low water-levels of previous years.

			High.
27th August	1906	...	...
5th September	1909	...	...
10th August	1910	...	...
1st "	1911	...	...
18th "	1912	...	...
21st "	1913	...	...
18th "	1914	...	...
12th "	1917	...	...
31st "	1918	...	...
2nd "	1919	...	...
			68'46
			67'16
			69'7
			68'1
			67'1
			69'12
			66'8
			Low.
			51'06
			51'06
			51'06
			50'60
			50'30
			50'60
			51'0
			51'40
			50'4

N.B.—Zero of the gauge at Dacca Water-works = -48'51 with reference to P. W. D. datum.

DACCA,
The 30th June 1921. I. GHOSH,
for Executive Engineer, Dacca Division.

Statement of weekly gauge readings on the River Ganges at Rampur-Boalia for the week ending the 25th June 1921.

Date.	Hour.	Height of surface above or below zero minus sign for those below zero.	Height of surface above mean sea level according to P. W. D. datum.	Height of surface above mean sea level on the same date last year according to P. W. D. datum.	Remarks.
1921. 19th June	... 8 A.M.	Zero of gauge is at sea-level.	38'85	38'55	P. W. D. datum 6'25 feet above Kidderpore old dock sill.
20th "	... 8 "		38'70	39'20	
21st "	... 8 "		38'85	39'80	B. M. on College step.
22nd "	... 8 "		39'00	40'25	
23rd "	... 8 "		39'30	40'50	64'93.
24th "	... 8 "		39'55	40'70	
25th "	... 8 "		40'15	41'20	

	Old value.	According to P. W. D. datum.
The previous year	Highest water-level	69'69 on 12th August 1920
Ditto	Lowest "	34'29 on 28th April 1920
Record	Highest "	69'25 on 26th August 1879
Do.	Ditto "	69'08 on 9th September 1885
Do.	Ditto "	68'80 on 25th August 1906
Do.	Ditto "	68'21 on 26th August 1890
Do.	Lowest "	57'63 on 25th April 1884
Do.	Ditto "	38'18 on 14th and 15th April 1888
Do.	Ditto "	39'02 on 21st and 22nd April 1897
Do.	Ditto "	39'28 on 6th and 7th May 1908

N.B.—The gauge readings commenced from the 1st August 1887.

BOALIA,
The 25th June 1921. S. C. BHATTACHARJI,
for Executive Engineer, Rajshahi Division.

SUPPLEMENT TO THE CALCUTTA GAZETTE, JULY 6, 1921. 1371

Statement of weekly gauge readings on the Rivers Ganges and Brahmaputra at Goalundo for the week ending the 25th June 1921.

Month and date.	Hour.	Height of surface above or below zero of gauge.	Height of surface above mean sea-level.	Height of surface above mean sea-level on same date last year.	Remarks.
1921.					
19th June	... 7 A.M.	21'4	21'4	15'8	Zero is placed at mean sea-level.
20th	... 7 "	21'3	21'3	16'2	
21st	... 7 "	21'0	21'0	17'0	
22nd	... 7 "	20'8	20'8	17'5	The bench mark for the gauge is on a pucca pillar between the passenger ghat and Chaudpur ghat.
23rd	... 7 "	20'7	20'7	18'1	
24th	... 7 "	20'4	20'4	18'6	
25th	... 7 "	20'0	20'0	19'1	Its reduced level is 26'84.
The previous year					
Ditto	... ... Lowest	"	... 5'6 on 13th February and 1st and 2nd March 1920.		
Record (H.F. in Brahmaputra and Ganges)	... ... Highest	"	... 25'75 on 28th August 1906.		
Record (average flood in Brahmaputra and Ganges)	... ... Ditto	"	... 25'74 on 20th and 21st August 1893.		
Record (H.F. in Brahmaputra and Ganges)	... ... Ditto	"	... 25'66 on 11th to 17th and 31st August 1889 and on 1st to 3rd September 1889.		
Record (H.F. in Brahmaputra only)	... ... Ditto	"	... 25'66 on 31st July 1900.		
Do.	... ... Lowest	"	... 1'0 on 8th February 1914.		
Do.	... ... Ditto	"	... 2'42 on 18th March 1908.		
Do.	... ... Ditto	"	... 2'91 on 21st to 24th February 1884 and 8th to 9th March 1884.		
Do.	... ... Ditto	"	... 3'16 on 9th to 11th March 1885.		
Do.	... ... Ditto	"	... 3'16 on 16th, 17th and 29th to 31st March 1901.		

N.B.—The gauge-readings commenced from 3rd October 1909.

FARIDPUR,
The 26th June 1921. S. P. DAS GUPTA,
for Subdivisional Officer, P. W. D., Faridpur.

GOVERNMENT OF BENGAL, IRRIGATION DEPARTMENT.

Approximate return of traffic on the Circular and Eastern Canals for the week ending Saturday, the 25th June 1921, as compared with the corresponding week of the previous year.

Nature of cargo.	WEEK ENDING SATURDAY, THE 25TH JUNE 1921.			WEEK ENDING SATURDAY, THE 28TH JUNE 1920.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
Rice and paddy	...	275	Mds. 53,020	Rs. 889	180	Mds. 29,730
Jute	...	51	28,500 ^a	283	60	413
Firewood	...	117	70,105	1,010	105	26,645
Other articles	...	827	248,190	2,766	633	303
Total	...	1,270	399,815	4,948	978	312,284
Empty boats and rafts	...	428	...	1,370	352	1,305
GRAND TOTAL	...	1,698	399,815	6,318	1,330	4,875

* Weight by canal measurement Mds. ... 29,464

G. J. ST. C. SEDGLEY,

Under-Secretary
to the Government of Bengal.

CALCUTTA,
The 2nd July 1921.

CORPORATION OF CALCUTTA.

NOTICE.

NOTICE is hereby given that the General Committee having previously given notice of their intention to define the general line of buildings on either side of the public street known as Marquis Street in ward No. 13 and no objection having been received within 30 days from the date of the publication of such notice, made an order under section 350 (4) of Act III (B.C.) of 1899 on the 16th day of June 1921 defining the said line in accordance with the plan approved by the General Committee on the 31st day of March 1921 (in supersession of the line defined by the General Committee on the 28th day of August 1908).

C. F. PAYNE,

Chairman of the Corporation.

CENTRAL MUNICIPAL OFFICE, *the 29th June 1921.*

**RESOLUTION APPOINTING A COMMITTEE TO ENQUIRE INTO
THE RECENT STRIKES ON LIGHT RAILWAYS.**

GOVERNMENT OF BENGAL.

COMMERCE DEPARTMENT.

Commerce.

CALCUTTA, THE 5TH JULY 1921.

RESOLUTION—No. 2401Com.

AT the request of Messrs. Martin and Company and of the representatives of their employés on the light railways under the management of the firm, the Governor in Council has constituted a special Conciliation Board to examine the causes of the recent strikes on these railways. The Board will consist of the following gentlemen :—

Mr. C. W. Rhodes, C.B.E.	...	...	...	President.
Rai Chuni Lal Bose Bahadur, I.S.O., Sheriff of Calcutta	...	...	...	Members.
Mr. Krishna Chandra Roy Chaudhuri, M.L.C.	...	...	...
Mr. D. Gladding, I.C.S.	...	...	...	Secretary.

In accordance with the terms of reference, which have been agreed to by both parties, the Committee will enquire into the following points :—

- (a) The alleged inequitable effect of a recent rule regarding the calculation of overtime ;
- (b) The alleged insufficiency of the supply of uniforms ;
- (c) The alleged hardship caused by fines imposed for slow running said to be due to the use of bad coal ;
- (d) The demand for extension to the Engineering Department of the full increase of 45 per cent. granted to other departments in 1920 ;
- (e) Alleged insufficiency of the house-rent allowances ;
- (f) Alleged deliberate transfers of the officers of the Railway Workmen's Association and the dismissal of one man ;
- (g) Demand for improved terms of service for lady ticket collectors ;
- (h) Demand for treatment of all the employés in the workshops as permanent hands ;
- (i) The justification for the recent strikes and the conduct of the strikes and proposals for the improvement of the relations between the Company and its employés in the future.

The President will settle times and places for the meetings of the Board, which, it is hoped, will be able to commence its enquiries immediately.

By order of the Governor in Council,

A. MARR,

Secretary to the Government of Bengal.



The Calcutta Gazette

WEDNESDAY, JULY 13, 1921.

SUPPLEMENT.

OFFICIAL PAPERS.

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REPORT ON THE EXPANSION AND IMPROVEMENT OF PRIMARY EDUCATION IN BENGAL.

GOVERNMENT OF BENGAL.

EDUCATION DEPARTMENT.

Education.

RESOLUTION—No. 1284 Edn.

CALCUTTA, THE 2ND JULY 1921.

THE late Government of Bengal, convinced of the necessity for the expansion of primary education in the Presidency and desirous of bringing

the Bengal Primary Education Act, 1919, into effective operation, placed Mr. E. E. Biss, of the Indian Educational Service, on special duty in August 1920, with instructions to scrutinise the returns received under the Act, to make a careful survey of the conditions of primary education both in municipal and rural areas and to formulate a programme for its expansion throughout the Presidency. The report of Mr. Biss has been received by the Minister for Education, who desires to acknowledge the capacity with which Mr. Biss has discharged his task. His report is a valuable contribution to the literature on the subject, and his suggestions merit careful consideration. It has been decided to publish the report and to invite the opinion on it of local bodies and also of public associations and individuals. The Government of Bengal (Ministry of Education) will welcome criticism both of the general principles enunciated in the report and of details connected with the schemes suggested in it. In particular, they will be glad to receive constructive proposals with reference to specific local conditions and in regard to the cost of carrying out these schemes and the sources from which the necessary funds, capital and recurring, are to be derived.

2. There can be no doubt that a wide expansion and definite improvement of primary education is necessary to the welfare of the country, and the Government of Bengal (Ministry of Education) are of opinion that the time has come for the organization of a complete national system of primary schools for Bengal. The object in view is the formation of a network of schools so placed as to be within the reach of every household. To this end the populated portion of any given locality would be divided into fixed "school areas," each served by a central school designed to accommodate the great majority of the boys of primary school age within the "school area." The Bengal Primary Education Act of 1919 proceeds on the assumption that a child of primary school age can walk one mile to school. Mr. Biss has suggested a circle of half a mile radius as a rough guide to the size of a "school area," the exact size and shape of each being settled in accordance with local conditions. It has to be remembered in this connection that the larger the area served by one school, the smaller will be the number of schools and the smaller the cost of establishing and conducting them. These schools would be publicly controlled by the local authorities, *i.e.*, the municipalities and the district or union boards. The teachers would be paid salaries instead of making what they can, as at present, from small grants and fees. Opinions are invited upon the best size of the "school area," and also on the subject of the re-establishment of a public examination at the end of a primary school course (*cf.* paragraphs 30 and 65-69 of the Report).

3. In some localities, it may be possible to exercise compulsion in order to secure the attendance of boys of 6 to 10 years of age, as is contemplated by the Bengal Primary Education Act of 1919, but it is recognised that for the present it is not possible to make its application universal. Expressions of opinion as to whether the adoption of compulsory primary education in the future should be taken as a directive idea would be welcomed.

4. The question of the desirability of giving religious instruction in primary schools, with which Mr. Biss has dealt in Chapter IV of the Report, is a difficult one calling for careful consideration, and it is hoped that well-informed views, capable of practical interpretation in actual school conditions, will assist Government in formulating a policy.

5. Mr. Biss has advised that primary and middle schools should together be regarded as the elementary schools of the future. He advocates the gradual rising of the former to the status of the full elementary school as rapidly as may be possible, though he recognises that the process will necessarily take a long time. At present there are

five Government normal (or 1st grade training) schools in Bengal and 22 guru-training schools of an improved type, as well as a number of less efficient institutions which are slowly being replaced by training schools of the new type. Mr. Biss suggests the combination of normal and guru-training schools, and the training together at convenient centres of all elementary teachers, *i.e.*, teachers for primary and middle schools, and for the lower classes of high schools where these continue to exist. In his opinion each district should be provided with a combined institution of this kind. The Government of Bengal realise the great importance of the improvement of the training of teachers, but have not as yet come to a decision on the matter. They would value expressions of opinion upon the subject from those who are conversant with it.

6. It is obvious that if there are to be an expansion and improvement of primary education more money must be made available for the purpose. It is beyond the power of Government to bear the whole cost, and the present policy of dividing it between the central and local authorities must, therefore, be continued. The Government of Bengal (Ministry of Education) are not yet in a position to fix a definite proportion as between these contributing parties, either as a general rule or in relation to local bodies individually. It will take some time to ascertain fully and give effect to the national will in respect of the lines on which the development of primary education should proceed ; and in the meantime Government will sympathetically consider any individual schemes that may be put forward, taking into account the circumstances of the locality concerned and the degree of self-help displayed by the local authority. At the same time they invite reasoned opinions as to the manner in which the question of proportion should finally be determined both in regard to capital and recurring expenditure.

7. It is also a matter for careful consideration whether it will be possible to forego the income from fees, which in the past have bulked so largely in the receipts of the schools. While Mr. Biss's proposals make a far larger demand on the Provincial Government, they do not on an average demand more but, on one alternative plan, substantially less than is now being paid in fees, local grants and contributions. His suggestion is that the money should be paid on a different method, *i.e.*, by the rate-payers as a whole. In this way heads of large families would be relieved of some of their expenses, while people who have no children and have fewer expenses would be called upon to pay a small sum for the national good : the average incidence per head in the municipalities for which calculations have been worked out is less than three annas per month. This is, he urges, a form of co-operative effort for the common good, which is calculated to produce far better results, by the provision of a better organisation, a better staff and better buildings and equipment, than is possible in present circumstances. While Mr. Biss strongly advocates this plan he does not exclude the possibility of finding a part of the local contribution from fees, nor do his proposals depend upon making primary education free.

8. Expressions of opinion are invited on the suggestions set forth in the Report in the matter of loans to finance programmes of development, and it may be stated here that the Government of Bengal are prepared to consider the possibility of allowing local bodies to raise loans locally from sources other than Government and of themselves contributing towards the charges involved in the payment of interest and the re-payment of capital.

9. The Government of Bengal are already putting the ideas of the Report to a practical test by experiments in certain areas. They will welcome detailed proposals for additional experiments from local bodies who desire to make sure of their ground before going forward with a new policy throughout the areas under their jurisdiction.

10. The new primary system will undoubtedly have to be linked closely with a larger organisation of higher institutions which, together with it, will form a co-ordinated national system designed to meet the requirements of all sections of the people in respect not only of general or cultural instruction, but also of vocational education, *i.e.*, a training primarily intended to fit its recipients for earning a livelihood in some definite industry, trade, or profession. The development of this larger organisation is receiving the attention of the Government of Bengal (Ministry of Education).

By order of the Government of Bengal

(Ministry of Education),

L. S. S. O'MALLEY.

Secretary to the Government of Bengal.

CHAPTER I.

Introduction.

1. **Orders.**—In his letter No. 505 T.—Edn., dated the 3rd August 1920, to the Director of Public Instruction, Bengal, the Hon'ble Mr. L. S. S. O'Malley, C.I.E., I.C.S., Secretary to the Government of Bengal, conveyed the orders of Government that I should be placed on special duty for six months to draw up a programme for the expansion and improvement of primary education in Bengal. These original orders were that the special officer was to examine and scrutinise the returns received from municipal bodies under the Primary Education Act of 1919, section 3 (*vide* Appendix A); to visit each municipal and district board area with a view to ascertaining the condition of elementary education; and to work out definite and detailed proposals for expansion, which might extend over ten years. It was recognised that new expenditure would be necessary and instructions were given that the report should indicate how much of this:—

- (1) should be borne by the ordinary income of the local bodies,
- (2) what assistance would be required from Government, and
- (3) what amount should be raised by the imposition of an education cess.

2. It was subsequently realised that these orders would involve the preparation of detailed schemes for 115 municipalities as well as for 25 district board areas after personal visits paid to each, and that the time allotted was far from sufficient for carrying out these instructions, especially in view of the approach of the Puja holidays, when all schools and educational offices close for the best part of a month. I was therefore ordered to draw up schemes for typical municipalities and to consult district board authorities at the headquarters of each district, the object being the presentation to the then future Education Minister of such data as might form a basis upon which a policy for the improvement and expansion of primary education might be built. I was also to offer facts which would suggest the approximate cost of carrying out the proposed policy, and to arrive at general conclusions, of which the details were to be worked out later. The question of primary education in Calcutta was specifically omitted from the scope of my enquiry, as was also that of the primary education of girls.

3. I was also instructed (Director of Public Instruction's letter No. 2810 P., of 23rd August, 1920), to make proposals regarding the expenditure of one lakh of rupees that had been set aside in the budget for primary education outside Calcutta for the year 1920-21. Unfortunately Rs. 50,000 out of this had to be utilised for other purposes, while Rs. 25,000 was allotted to the municipality of Darjeeling for a part of its educational programme. Out of the balance had to be found the cost of the enquiry, so that little remained with which to experiment in this matter of primary education in which so much experiment and research is required before we can feel secure in advancing along any particular line of policy.

4. Before my deputation began, all municipalities in Bengal had been instructed by Government to send in returns under the Bengal Primary Education Act of 1919. A copy of the letter containing these orders, with the statements required, will be found in Appendix B. The value of the returns which were secured by this means was much smaller than had been hoped owing to several contingencies:—

(i) They are still, even at the moment of writing, incomplete.

(ii) The Municipal Commissioners were in doubt as to whether the estimate that was to be prepared regarding the probable number of children who would attend school "voluntarily" was to be taken as on a free basis, or on the present basis on which fees are charged.

(iii) All calculations of the numbers of children were of a most doubtful kind. In some cases they were based on percentages taken from the 1911 census returns and calculated in different ways. These returns are themselves ten years old and obviously cannot now be relied upon. Other authorities made an attempt at an informal house-to-house census of the child population, and this, as far as I could gather, could not be considered to be accurate. Some authorities resorted to the simple expedient of demanding an unprepared estimate from the local inspecting officers.

(iv) In most cases the constructive proposals sent in were mere paper and arithmetic schemes having little relation to the needs of a municipality. One municipality proposed the establishment of 46 schools (which represents 9·2 schools per square mile), at a capital cost of Rs. 94,400 and a recurring cost of Rs. 20,200. It was found in consultation with the Commissioners that 8 schools would amply meet the needs of the town, representing 1·6 schools to a square mile (including unoccupied areas), at a capital cost of Rs. 43,650, and a recurring cost of only Rs. 16,650, though the remuneration of the teachers was to be substantially increased. Another municipality proposed 40 schools, or 6·5 schools per square mile, at a capital cost of Rs. 21,906 and a recurring cost of Rs. 9,120. The number of schools had to be reduced to 7, or 1·1 schools per square mile, and the cost raised to Rs. 31,500 capital, and Rs. 11,490 recurring.

(v) There is no system of individual birth registration.

5. In view of the number and extent of all these varieties of error, I have not thought it worth while to pay very great attention to the figures resulting from such returns as we have obtained in this way. It appeared to be preferable to obtain afresh from the departmental officers such figures as are available and to check them while examining the whole question on the spot in consultation with local officers and the municipal authorities. The results will be found in various statements in the appendices at the end of this report and in the conclusions of the report itself. Even now no guarantee can be given that they are more than approximately correct.

6. **Method of Work.**—A detailed scheme, with a covering letter showing the principles underlying the proposals, and tabular statements showing the Capital and recurring expenditure involved in adopting them, was drawn up and submitted to each of 35 municipalities with separate copies of the covering letter and of the statements for each Commissioner, so that their consideration might be leisureed and full. A specimen scheme which has been unanimously accepted by Rangpur municipality is attached in Appendix C together with the statements which were put before Howrah Municipality.

7. The method adopted for the development of these schemes was as follows. With the consent of the Divisional Inspectors of Schools, the District Deputy Inspectors of Schools were asked to send in a report on the municipality at their district headquarters as one educational problem. The lines to be followed were indicated in a printed skeleton report. First was to come a short description of the locality as regards its physical features, especially with reference to obstacles to locomotion and as regards its population and its social and industrial conditions. Next was to come an examination of the number, character and position of all schools of every class, graded according to their efficiency in four grades, of which the differentiating points were laid down. This was to be accompanied by a tabular statement and a map. A critical description of the weakness of the existing conditions and their causes was to follow. Next were demanded full financial details regarding schools, showing the sources of their income and the cost per child. The local inspecting officers were asked to submit a second map showing the position of what they considered to be the best places to put municipal schools, so as to serve the whole population most effectively, with estimates for each school under the headings of "Site, buildings and equipment" on the capital

account, and " Staff, contingencies and repairs " on that of recurring expenditure. Suggestions were offered as to the possible kinds of buildings that might be suitable and as to what might be considered, if not a satisfactory, at least a reasonably improved scale of payment for teachers. All this was well done at a cost of great labour to the officers concerned.

8. Having studied the detailed account thus obtained, and having considered it in connexion with the municipal budget, a personal visit was paid to the municipality concerned, where a consultation was held with the inspecting officers. A provisional scheme was drawn up with the help of a map. The existing schools and proposed sites were then visited as far as time permitted. The number of schools so visited was about 583. Many parents of children in the schools were consulted as to their wishes; and the teachers were closely questioned as to their pay, drawn from the school and from outside sources, and as to what they would consider a fair remuneration if they were offered posts in municipal schools. Enquiries were also made as to how far children of primary school age could reasonably be expected to walk in the local circumstances. The District Magistrates and other interested officials were consulted informally as to their views on the resources and requirements of the municipality. In the evening I met the Chairman, Vice-Chairman and as many Municipal Commissioners as could be gathered and, with the aid of blackboards and maps, explained the nature of the existing state of affairs, and of the proposals which I was about to make. The gentlemen present then asked questions and offered criticisms which were noted and the scheme revised as far as possible according to their views. The scheme was then sent to the municipality in the way that has already been indicated (paragraph 6 above). Copies of the schemes were also sent to Divisional Commissioners, District Magistrates, Divisional and District Deputy Inspectors of Schools, and any gentlemen who had expressed special interest in the matter. On two occasions I was honoured by a request from the local Bar Library to address its members and those whom they desired to invite to the meeting.

9. A general method of examining the non-municipal areas was not so easy to arrive at as that which is suitable in municipalities. The rural population is naturally far more scattered, the physical conditions vary more in different parts of the province, the people are less homogeneous in their standard of interest through having received outside stimuli in a less degree, there are fewer people proportionately who can be relied upon intellectually to grasp the issues of the question in hand, and somewhat narrow religious and social prejudices have a firmer hold. Besides this, one is bewildered by the immensity of the area and the extent and hugeness of the population to be dealt with. One district can reasonably be compared with the whole of Ireland; the whole province contains about the same number of people as the British Isles.

10. All Bengal is divided into five divisions, each under a Commissioner, and containing a varying number of districts. Altogether there are 25 districts in the Province each controlled by a district board which, in the majority of cases, is now under a non-official Chairman. Each district has its own Magistrate-Collector. Speaking generally, it may be said that these districts are divided into subdivisions, controlled by local boards and magisterial officers called Subdivisional Officers. The subdivisions are in turn divided into thanas, which are mainly units of police administration, though they are also convenient for other purposes. Within the thanas are groups of villages and hamlets called unions, each of which contains a small number of mauzas. Originally these unions were called panchayeti or chaukidari unions and existed largely to deal with the pay of the rural police of these small areas which, on an average, contain about ten square miles. The Local Self-Government Act of 1885 made it possible to create union committees, who were given certain powers in a more or less experimental manner. In 1919 the Village Self-Government Act made it possible to create union boards, to whom are being entrusted very substantial powers, among which are the control of the primary schools. These boards are only now being organised, and it is too early as yet to be certain how they are going to work. It is

expected that 1,500 will be working by the end of March 1921. In the whole of Bengal when, if ever, it is so divided up, there will be between 6,000 and 7,000 of such union boards.

11. I personally consulted the District Board Chairmen and Vice-Chairmen, and any members who could easily be gathered as to the state of their finances and as to the condition of primary education in their districts. All were agreed that any real hope of improvement must be based on the development of the union board activities. I therefore visited a good many union board areas to work out educational schemes for them and had others worked out by my staff. We have schemes prepared in detail for 23 union board areas. These were prepared in each case on the spot with reference to local conditions and in consultation with the inhabitants. A specimen of one of these schemes is attached in a summarised form as Appendix D. The Khulna District Board has offered to carry out an experiment in organisation in three of its union board areas.

12. **A General Social Problem.**—The broad result of all this investigation "in the cottage where the nation dwells" is to bring out the fact that the question of the expansion and improvement of primary education is only one phase of a general social problem of an immense extent among people who are for the most part at a somewhat rudimentary stage of development. It is a problem of bodies to be filled and fattened, of minds to be enlightened, and of lives to be set free. At this early stage of limited specialisation, it is possible and necessary to consider together the psychological, ethical, social, economic, political and financial factors which are so closely interwoven in the situation. The man we are interested in is not divided into departments. The Government Department of Industries may discover that there are plenty of bones available for crushing into manure, the Agricultural Department may discover that a 30 per cent. increase of crop can be obtained from land treated with bone manure; but, if the farmer is in debt and cannot borrow money for less than 30 to 60 per cent. per annum (a common state of affairs), this knowledge becomes useless unless he can become connected with a co-operative credit society that can give him money at (say) $12\frac{1}{2}$ per cent. The development of the co-operative credit system depends in its turn to a large extent upon the improved intelligence of the people through the schools. Discussion of the respective importance and order of precedence as among education, sanitation, co-operation, agricultural and industrial research and propaganda is utterly vain. They must advance together supporting and supported by each other.

13. The people are poor, and unfortunately believe themselves to be poorer for purposes of taxation than they really are. This is not the place to attempt to go thoroughly into the causes of this poverty, but it is worth while to indicate that it is of two kinds. There is an *apparent* poverty which is caused by a change in the standard of living. Fountain pens, gold-rimmed spectacles, bicycles, wrist watches, various glittering trifles, complicated clothes, foot-wear and so forth, are becoming so fashionable that every one feels poor if he cannot afford to buy them for himself or his family. Society existed without these things until quite recently, but they have become necessities to-day. There is also a *real* poverty of which the immediate cause is the rise in the price of food-stuffs and of cloth. The real problem before the country is the cure of both these kinds of poverty. It may seem possible to cure the first by persuading the people to do without these products of modern life, but it does not seem probable that this persuasion could be successful. It is not the drinking that has to be cured, but the drought. The second kind can only be cured through greater, more intelligent and more skilful production. A part of the trouble at least is caused by the increase of population and consequent subdivision of the land; a part is due to the discovery that the big towns are frequently healthier than the country districts, and the resulting emigration of the more intelligent classes to urban areas, their land being left in the hands of people whose short tenancy does not encourage its improvement. There is a stir among the people and a demand that something should be done. This demand needs to be estimated, defined, directed and

satisfied. There is a feeling that the time has come to stop whining and "to doe the nexte thyng," but people do not know what the next thing is and they hate the idea of taxation, not realising, that taxation in a democratic sense is properly only a form of mutual co-operation, and that without taxation nothing can be done. Various Government departments are engaged in activities connected with sanitation, industry, agriculture, co-operative banks, education, veterinary work and so forth, but the people demand immediate results and these activities do not appear to them to be effectively co-ordinated. There is an impression that these departments are costing more than they are worth; as one Indian expressed it:—"It is not the weight of the burden that we complain about, but that of the saddle." Such criticism is possibly not enlightened, but it can only be stilled by success, by intelligent propaganda work, by economy and by close co-operation between the representatives of the various departments on the spot in the rural areas, and in the Secretariat. A recent investigation into the question of primary education in Indian villages stated the most common causes of poverty to be debt, with high interest, laziness, exploitation, ignorance and lack of skill, drink, extravagance, and conditions resulting from famine, epidemics and sickness. Amongst these indebtedness is put first, while climatic difficulties and increase of population are also mentioned. It should perhaps be added that this estimate had not a direct reference to conditions in Bengal.

14. **Dangers of Primary Education.**—This report is not directly concerned with economic matters, though they are of necessity referred to in Chapter V in connection with vocational education. We are here concerned specially with the educational problem, and the recent District Board Conference passed a resolution "that it is desirable to press forward the expansion and improvement of primary education in Bengal." A writer in the Encyclopædia Britannia (11th edition), has truly stated that "the organisation of the higher grades of education constitutes a task of less formidable magnitude than the organisation of elementary education." The Government of India have also emphasised its importance and have proclaimed that it should have a "predominant claim on public funds." The Sadler Commission declared that "the way to what is wise and far seeing in the planning of primary education for India is the most inspiring and most perilous of tasks," and Mr. P. J. Hartog, C.I.E., though of opinion that it is "the largest educational problem now before the world," and that "for the majority, or all, primary education is coming, *must* come," still asks: "What is primary education going to do for the people? Is it merely going to sensitise further an already impressionable people? or is it going to give them that power of self-determination and judgment demanded by the Montagu-Chelmsford Report, but which it is so difficult to give in practice in any country?"

15. Some people wish to settle the matter by endeavouring to realize an imaginary picture of an idyllic past when everybody was efficiently taught all they needed to know under the village tree; the teacher, we are told, contrary to the sordid customs of the present day, not only gave his services free, but actually supplied his pupils with free food and clothes. However that may have been, no one now seems able in the ordinary conditions of life in Bengal to return to that happy state; and it is of no use to any one for us to spend time in hankering after it. We have got to go forward to mould our destiny, remembering that "character is destiny," and that character is not formed *in vacuo*, but only through right action courageously directed by intelligent purpose.

16. There are, however, points of view from which the spread of primary education may appear to be of doubtful value and even to carry with it elements of serious danger:—

- (i) In moving about the country one sees little children playing happily in the fields and villages, or suitably and easily employed in the minor duties connected with their fathers' means of livelihood; and often one asks oneself whether it is kind or just to take them from so simple, useful, real and enjoyable a

form of education to trouble them with the weariness of attaining literacy without which their ancestors have lived and died for many generations.

- (ii) Some would maintain that to bring the sons of agriculturists into the school is to lessen their power of resistance to sun and disease, and to expose them more than ever to infection from hook-worm and other evils, unless those sanitary and hygienic precautions are taken in the neighbourhood of the schools which now seem to be impossible.
- (iii) Some anticipate that as soon as the country boy becomes literate he will despise his father's craft and will tend to become an ill-paid clerk in a town, entering into competition with the already ill-paid sons of the middle classes.
- (iv) Others expect that the country parts will thus be drained of their best brains.
- (v) Others again foresee the "spoiling" of their servants; or
- (vi) an increase of "apparent" poverty, and a struggle to remove it.
- (vii) The Bengal Administration Commission spoke of the "dangers of spreading among an eastern people a western education, cut down to the lowest possible cost, with no regard to religious training, and with little regard to moral training."
- (viii) The individual now supported in definite social conventions by his caste or his community has a clear path through life. If this support is shaken for large numbers of individuals among the masses, whither will the resulting disturbance carry us?
- (ix) If the peasant begins to read and to think he may become a prey to the unscrupulous agitator, and to add a discontented proletariat to a disturbed and disappointed middle class would indeed be folly.
- (x) It is said further that, having no need for reading and writing in their simple lives, the "lower" classes do not desire education; and
- (xi) that the school deprives them of the labour of their children in field or mill, as well as the amount of the fee or cess that may be levied, which can ill be spared from their meagre resources.
- (xii) Lastly, it is urged that a system of education on a useful scale would be expensive, and that Government has no money to spare for its development.

17. It is to be admitted that there is ground for fear—

- (i) that, until our teachers are really properly trained in happy school methods, the school will continue to cast "shades of the prison house" about the child's life;
- (ii) that there are certain risks to health at schools, which cannot be lessened in the present welter of small, almost uncontrolled *pathsalas* and *maktabas*;
- (iii) that, until literacy is universal, the unusual literate ploughboy or artisan will imagine himself too good for manual labour;
- (iv) that, until there is scope for educated intelligence in the rural areas, the best boys may turn towards the town;
- (v) that literate menial servants may prove somewhat intractable till they are properly treated;
- (vi) that, unless production and commerce increase so as to supply the probable demand that will arise for a higher standard of comfort in life, discontent will be sure to develop;
- (vii) that, if we regard neutrality in, as synonymous with indifference to, and even neglect of religious instruction in our schools, we shall leave undeveloped one of the most powerful safeguards of good conduct in our children.

- (viii) that, unless the intelligence of the community as a whole rises and supplies renewed rationality to existing or revised sanctions for conduct, there will be serious stresses set up within its body corporate through the progress of some individuals and the superstitious conservatism of others;
- (ix) that, unless our education confers the power of clear thinking and skilful action, and is followed up by a supply of good reading matter, the irresponsible agitator will find the field prepared for his sowing;
- (x) that, while the peasant sees only the kind of schools that are now before his eyes, he will decline to sacrifice his children to them; and,
- (xi) if he does use them, he will continue to say only what the schools are worth;
- (xii) that, if the present resources of Government and local authorities are not sufficient, new methods of raising money will have to be devised.

Each of these undoubted dangers arising out of free primary education carries its own safeguard in our knowledge of the condition that is attached to its existence. Knowing in what the danger lies it must be our endeavour to construct a system which will supply the expected deficiency, and avoid the lurking peril. One more unspoken objection to universal education is perhaps well answered in the words of Diderot: "There is no doubt but that it is more difficult to oppress a peasant who can read than any other man."

18. Necessity for Primary Education.—The fact is that Bengal, as part of the great country of India, is faced with a world situation which is insistent in its demand for attention, and the ignorance of the masses throws upon the "intelligentsia" the greater responsibility for the decision they have got to make in this question. No longer can barriers even of remoteness save the peasant in his hamlet from the invasive forces of modern life. The war has proved by the conclusive logic of its operations on the price of food, of cloth, and of silver that many "valleys have been filled" and many "mountains brought low," and that Bengal is nearer Europe, America and Japan to-day than it was to Bombay a hundred years ago. The closing of mills in distant Dundee would spread ruin in the plains of Bengal; and anarchy in Russia has caused havoc in the tea industry of its hills. As well might you equip the armies of India with bows and arrows to meet troops supplied with modern lethal weapons, as expect to compete in modern trade and commercial activities with only the present primary schools behind you. The sons of Bengal have got to prepare themselves and their motherland to face the rest of the world on equal terms, or to remain nurslings, or to become the spoil of the strongest. "Get rich," "Be prosperous," these are the watchwords that are needed to-day, provided they are followed with honour, and their fulfilment linked with true, unselfish service for the community as the corollary of success. To this end every man should do a man's day's work every working day. If this were done there would be nothing to fear from high wages, or high prices, or freedom itself. The greatest asset of the country is the hitherto undeveloped intelligence and unorganised strength of its masses.

19. From another point of view the matter is of urgent importance. The country has embarked on a course of political development which seems likely to be accelerated as time goes on. The very villagers have now substantial powers of self-government. The results of even the first elections for the Councils have shewn that representatives of the masses are likely to find places in them. If this is so, the sooner we "educate our masters," the better we can hope to be governed by them. The popular vote must be made an intelligent vote, or trouble and misery must result from any further extension of popular government. It may perhaps be noted in passing that the attainment of literacy is only the first step towards progress, and that at present only 7·5 per cent. of the population of Bengal are literate. A reference to Appendix E (a), will show that, though there has been a great increase in the number and percentage of the children at school, still the

number of illiterates in the country to-day is larger than it was twenty years ago. Ignorance is, in fact, a disease that is far more prevalent and, indeed, far more dangerous and destructive than even malaria. The need for sheer enlightenment is alone a sufficient reason for pressing forward the expansion of primary education.

20. The Purpose of Elementary Education.—If, therefore, it is decided to go forward in the determination to solve the psychological and financial problems that are involved in persuading the people of Bengal to make arrangements for offering free primary education to all their children, and in preparing the way for making it compulsory within a reasonable time, which may be reckoned at from five to ten years, we shall embark on an educational adventure which will call for a great ideal, a fixed purpose, a wide grasp of existing conditions, a sane policy, ingenious expedients, persuasive tongues, firm administration, and sound finance. The ideal may perhaps be stated as submission to the Highest Good in the service of an economically sound community by efficient and prosperous citizens. The purpose would then be *to make the largest possible number of individuals efficient and prosperous for the service of the widest community of which they can be made effectively to realize that they form a part.* The following chapters constitute an attempt to indicate the lines upon which this purpose can perhaps be fulfilled on the educational side of the question. In the meantime the following percentages of the population enrolled in elementary schools (*Progress of Education in India, 1912-17, page 4*), will indicate to some extent how far India is behind in the race:—

United States	...	19.87	Ceylon	...	...	8.94
England and Wales	...	16.52	Rumania	...	...	8.21
German Empire	...	16.30	Russia	...	...	3.77
France	...	13.90	Brazil	...	...	2.61
Japan	...	13.07	India	...	...	2.38

CHAPTER II.

History and Existing Conditions.

21. **Introductory.**—It is impossible to grasp the meaning of the present position of educational affairs in Bengal without knowing what has led up to it. The story of the secondary schools and of the University of Calcutta has recently been written by the Sadler Commission, that of the "vernacular schools" by Mr. H. A. Stark (now a member of the Legislative Council of Bengal). It is therefore unnecessary for me to do more than enumerate the main lines along which development has taken place in the administration of elementary education, to endeavour to state the nature of the difficulties that have been encountered in each phase of the problem, and to show how matters stand at the present moment. The different aspects of the question, whether specially related to policy, or finance, or control, or the training of teachers, or the actual instruction in the schools, must all be considered in their bearing upon one object, namely, the "child," in himself and in his future membership of the community.

22. **Policy.**—It has to be borne in mind at every step that all notions of a public system of free State education anywhere at all are the creations of but yesterday, and that it was not till towards the middle of the nineteenth century that such an idea began to take shape with any definiteness in any country in the world. It is therefore vain to regret that a system of village schools in Bengal was not, in the earliest days of British administration in Bengal, made an essential part of the village system. All through history there have been special classes, generally religious in character, that have held the stores of book knowledge and the finer forms of skill in their exclusive circles. Schools were conducted, whether in India or in Europe, by religious castes for special purposes. Other classes had their own forms of education for the field of battle, or at the plough tail, or in the mart; but in early days literacy was not an essential accomplishment for books were few and printing not invented. There are outstanding examples of human greatness who were utterly illiterate and apparently not much the worse for it in their own time and condition of society. Generally speaking literacy has to-day become the first step towards, and the prior condition of great or even moderate success among the complexities of modern life. Recognizing then, that in other circumstances, there are, or may be, better forms of education, we are bound now in Bengal to use the term "Education" as involving as a first minimum the attainment of literacy which is defined for census purposes as the ability to read and write a letter.

23. In the desolating wars which preceded the consolidation of the power in India of the East India Company, learning had been reduced to dire straits and was even in danger of dying out. The new rulers felt this at first in the courts of law. They therefore established the Calcutta Madrassah in 1782 and the Sanskrit College at Benares in 1791, so that there should be trained a number of men competent to quote Muhammadan and Hindu law. This was followed in 1814 by an annual grant from the Company of one lakh of rupees for "the revival and improvement of literature, and the encouragement of the learned natives of India, and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories of India." This declaration contains the seed of that struggle between the views of the "Orientalists" and the "Anglicists," which was to continue for many years, and of which in a modified form one hears echoes even to-day. The question was settled in favour of the Anglicists by Lord William Bentinck after considering Macaulay's Minute of 1835. While making no attempt to suppress existing schools, it was decided that "all funds appropriated for the purposes of education would be best employed on English education alone." To carry out this policy schools, which still exist as Government High Schools, were established at the headquarters of districts, and called zilla schools. These were to be the nucleus of "a system of national institutions," which was to spread to the villages. They were to

be "normal schools," that is, schools shewing the correct form of instruction or organisation, and teachers were to be trained in them before being sent out to found similar schools further afield. The indigenous schools of the rural areas were in the meantime to carry on their traditional activities finding their own support.

24. In 1835, the very year of Macaulay's Minute, as a result of another line of thought, Mr. Adam began his four years' survey of education in Bengal. He found that the teachers were "for the most part simple-minded, but poor and ignorant." They reflected as little honour on their occupation as they derived emolument from it. "They do not understand the importance of the task they have undertaken; they do not appear to have made it even a subject of thought; they do not appreciate the great influence which they might exert over the minds of their pupils; and they consequently neglect the highest duties which their situation would impose if they were better acquainted with their powers and obligations; they produce chiefly a mechanical effect upon the intellect of their pupils. As to any moral influence of teachers over pupils, any attempt to form the sentiments and habits, and to control and guide the passions and emotions, such a notion never enters their conceptions." Mr. Adam recommended the encouragement of these schools by the payment of grants, and that they should be co-ordinated with the central "Anglo-Vernacular" schools which have already been mentioned.

25. We thus see two clear and clearly opposed views of the policy that should be adopted. Macaulay despaired of these indigenous schools, saying: "We do not at present aim at giving education directly to the lower classes

We aim at raising up an educated class who will hereafter, as we hope, be the means of diffusing among their countrymen some portion of the knowledge we have imparted to them." He says further: "I do not see how we can either make the present teachers of elementary knowledge more competent, or supply their places as yet with fitter men. The evil is one which time only can remedy, our schools (zilla) are nurseries for school masters for the next generation. If we can raise up a class of educated Bengalis, they will naturally, and without any violent changes, displace, by degrees, the present incompetent teachers." Mr. Adam's view, on the other hand was that improvement would be effected by a system of payment by results, by assigning small grants of land to teachers trained in the zilla schools, and by the distribution of vernacular text-books. The Committee of Public Instruction considered carefully these two policies, viz., the spreading of a good education which was to include the teaching of English and the knowledge of the West outwards and downwards from well-organised centres, as against the view that money should be spent in improving the existing indigenous schools; and decided in favour of the former, declining even to experiment with the latter.

26. In 1848 Lord Hardinge, the First, endeavoured to reconcile the two ideas by starting 101 schools of a type between the zilla schools and those that were indigenous. The attempt appears to have been premature, for in ten years only 26 of these schools remained in existence.

27. Meanwhile Mr. Thomasson had experimented with Mr. Adam's scheme in a modified form in the United Provinces, and Lord Dalhousie determined to introduce it into Bengal since the downward filtration was making but slow progress. The Commission of 1882 blessed the dual system, but desired that provision should be made for boys from the primary schools to go on to the higher ones.

28. These two types of school are still in existence, but owing to pressure on the limited accommodation provided in them, the zilla schools and a good many of the aided high schools have abandoned their lowest classes. No public substitute has yet been provided for them. The children who use the zilla schools either come from the private and aided primary schools, or receive their early teaching from private tutors. In the next chapter proposals will be put forward for the acceptance of a policy aimed at establishing a public and national system of schools that is designed to meet all the needs of the situation.

29. **Finance.**—From the original grant of one lakh of rupees for education in 1814, until the present time, the expenditure of Government has been steadily increasing until in 1918-19 that on primary education alone reached the total of Rs. 23,01,585. Of this Rs. 16,60,467 was actually spent on the recurring expenses of the schools themselves and the balance on supervision, inspection, capital costs, etc. (*vide Appendix F*). It has been shown how after Macaulay's Minute it was considered necessary to spend all public educational funds on schools designed mainly for the upper classes. It was soon found that this policy alone would not meet the needs of the case, and in 1839 Lord Auckland returned to institutions for oriental learning the funds they had lost, and supplied additional funds for English education. At first Government was responsible for the whole expenditure on English schools, except what was obtained from fees, but it was soon found to be economical to substitute for this a system of grants-in-aid to schools under private management. After Mr. Adam's plan was adopted, this method of finance was applied to the primary schools, and took the form principally of "rewards corresponding in value to the progress made by the pupils," in other words of "payment by results." This plan was definitely accepted in 1871-72 and afterwards approved by the Commission of 1882. Expansion under it was so rapid that funds ran short. The amount of the reward was reduced and the conditions of its attainment made more difficult, but the expansion continued.

30. In 1901 "Payment by results" was abandoned on the recommendation of a Conference in Simla, and it was decided to pay teachers "subsistence allowances" quarterly, and extra payments at the end of the year, the latter depending on the numbers in the school and its general character as judged by inspection. In 1911 this was modified so that the subsistence allowances were to be paid twice a year and the grants earned by merit marks the following year. The practically unanimous opinion of the country is in favour of the reinstatement of a primary school examination and of some reward being given to the teachers on its results, not as part of, but in addition to their pay. In 1904-1905 the Burdwan District Board passed the following resolution, which appears justly to sum up the universal opinion:—"The abolition of public examination has entirely taken away the impetus from teachers, pupils and their guardians, and it has generated a greater evil than it was intended to remove. Now the guardians have become quite indifferent in sending their boys to primary schools, and the *gurus*, instead of being anxious to show results by teaching the boys, are now only anxious to secure the sweet will of their Sub-Inspectors, on whom they now entirely rely for their reward."

31. The great despatches of 1854 and 1859 aimed at a wide diffusion of elementary education, which was to be carried out by Government agency through the levy of a compulsory rate. The Government of Bengal, unlike the Government of India, took the view that the Permanent Settlement made the levy of a cess impossible. It also contended with more force that, if a cess was to be levied, it should be imposed on both agriculturists and non-agriculturists, since about one-third of the children in the *pathsalas* belonged to the middle and upper classes. The Duke of Argyll's despatch of 1870 confirmed the view of the Government of India, which was strengthened by the opinion of Mr. Wilson. The cess was, however, never levied, and fees continued to be charged to help out the grants-in-aid, and to-day the expenditure from public funds is still a little less than half the total cost of primary education in Bengal. The question of the financing of primary education has never been put upon a definite and satisfactory basis, and its more recent history has been one long struggle to meet an impossible situation with wholly inadequate funds. The principle of a cess with safeguards has, however, been admitted in the Bengal Primary Education Act of 1919, and it is upon this important principle that the recommendations regarding finance in Chapter IX of this report have been founded, although an alternative has also been suggested.

32. Meanwhile district board schools were being established in backward areas with a view to giving the people a "taste for literacy." It was intended to convert them into aided schools as the people were prepared to

undertake their upkeep. This process of conversion was unduly hastened by the financial difficulties of Government, and by 1905 the existing board schools had come to be regarded as obsolete survivals. The Government of the shortlived province of East Bengal and Assam, seeing their importance, revived the scheme, and embarked upon a policy that was intended to place a board lower primary school in every panchayeti or chaukidari union that was not already in possession of an upper primary school which could be regarded as of equivalent standard. The scheme was extended to Western Bengal when the two parts of the province were re-united. The present condition of the scheme will be seen in Appendix G. Over 3,000 unions remain to be provided, and at the present rate of progress it will take periods varying from 3 to 78 years to complete the scheme in the different districts. This scheme makes provision for the payment of Rs. 10 per month between two teachers. The head pandit generally gets Rs. 7 and his assistant gets Rs. 3. The fees usually amount to about Rs. 6 a month, and these are also divided. In the Quinquennial Review for Bengal for 1912-17 (page 56), the Director says: "The merits of this scheme are considerable, but it has not contributed to the expansion of primary education. A considerable number of the schools affected were existing institutions." The completion of this scheme is merely a matter of the provision of funds which have hitherto been found from Imperial grants. Beyond this there does not seem to be any plan in existence for expanding primary education in Bengal.

33. The amounts spent on primary schools, apart from capital sums and those required for control, were in 1919-20—Imperial and Provincial funds, Rs. 17,12,645; District Board funds, Rs. 7,55,864; Municipal funds, Rs. 1,09,186, private sources, including fees, Rs. 23,67,930; or a total of nearly fifty lakhs of rupees (*vide* Appendix F.).

34. **Control.**—Much of the early work in primary education was done, and is still being done, by religious societies. At first the comparatively small Government funds were distributed without difficulty, but in 1823 it was found necessary to appoint a "Committee of Public Instruction" with local committees in country districts to assist it. By 1842 the funds to be utilised had reached a sum of over 5½ lakhs and a Council of Education was formed to control all educational institutions, except those of a purely vernacular character. It may be remarked in passing that it was by this fact that the distinction between "Vernacular" and "English" schools arose. No other sound reason for such a fixed distinction has ever existed and even this has long passed away, and is now becoming especially meaningless, as the teaching of English is to be permitted in the primary schools.

35. The local authorities were so apathetic, that in 1844 it was found necessary to supersede them by the appointment of an inspector of schools. One of the results of the celebrated despatch of 1854 was the appointment of a Director of Public Instruction in place of the Council of Education.

36. The first attempt at any organisation of schools in Bengal appears to have been made by the Christian Knowledge Society in 1822. Three "Circles" were established at Tollygunge, Cossipore and Howrah, each containing one central and five ancillary schools, each school being in charge of its own *guru*, and the circle of schools being superintended by a "Circle Pandit." This was afterwards elaborated into the "Circle System," in which stipends were paid and not grants-in-aid. This system was recognised by the Government of Bengal in 1863-64 and ten years later was much extended by the division of every district into "Circles" for convenience in the examinations that accompanied the acceptance of the plan of payment by results. The "Circle System" developed into the "Chief Guru System," in which the head teacher of the central school became responsible for the schools of his circle, and became the medium of control between the Department and the small scattered *pathsalas*. Ultimately it was found to be impossible for the chief *Gurus* to manage their own as well as to visit and supervise the work of other schools. They therefore became the "Guru Instructors" or "Inspecting Pandits," whose successors are still with us. This system was intended to increase the number of schools, and succeeded in doing so, but it ultimately outlived its usefulness, as some of the schools only

existed in name, while others rose to a higher standard than that of the central institution. The increase in the number of the schools had been so great under this system that in 1882-83 a halt was called, and it was decided to try to consolidate and improve the existing schools. By 1890-91, the "Circles" seem to have become indistinct and they were finally abolished in 1911.

37. Meanwhile local government was developing and the control of primary education was considered in connection with it at each step. In 1873 Government was empowered to require municipalities to establish and maintain schools. In 1882 the Municipal Act relieved municipalities of police charges, on condition that the money should be devoted to education. The Education Commission of 1882 stated that they attached great importance to the connexion of all agencies of primary education with the scheme of self-government which was being developed in India. In 1882 also authority was taken to give the union committees certain limited powers in relation to primary schools. The control of local bodies at first resulted in a decrease in the expansion of primary education relatively to that of secondary schools, but much is hoped from the work of union boards, which are being constituted under the Village Self-Government Act of 1919.

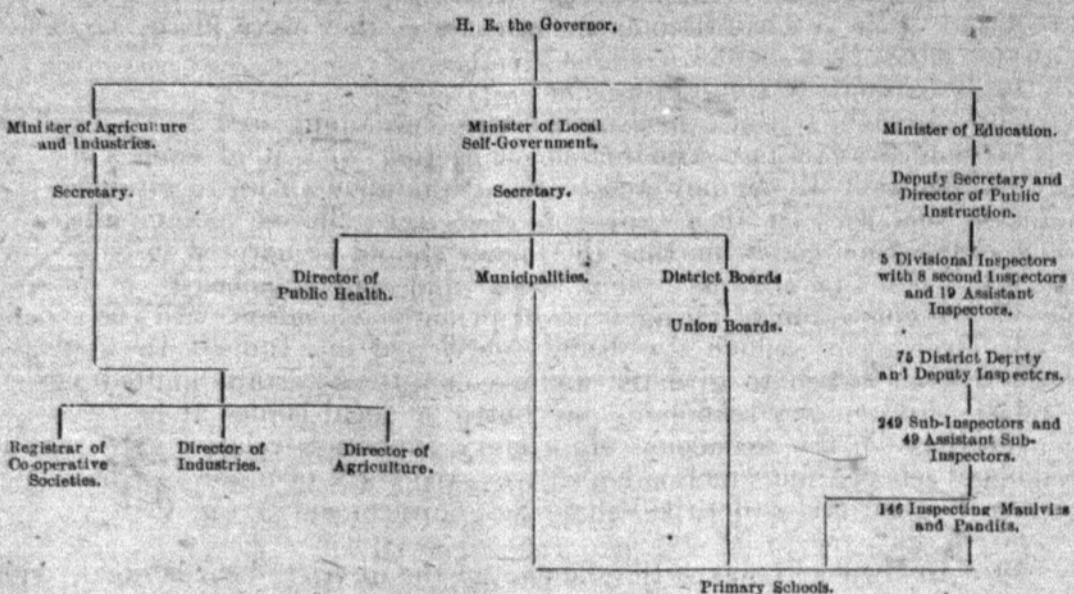
38. In order to make the control of the district boards real, sub-inspectors were at one time made servants of the boards. The District Deputy Inspectors were made *ex-officio* members of the boards in 1890, but remained Government servants. This plan did not work for two principal reasons. First, the sub-inspectors were given all kinds of non-educational work to do, such as the supervision of pounds, ferries, and the sale of quinine; and second, because the District Deputy Inspectors had not sufficient control over them, for they were not in a directly subordinate position. The sub-inspectors were, therefore, again made into Government servants and remain so now, being subordinate to Deputy, District Deputy, and Divisional Inspectors, and so to the Department.

39. The increase in the number of primary schools in recent years has demanded an increase in the number of sub-inspectors. It was unfortunately impossible to find the funds to finance this large increase. A new class was therefore called into existence, and they were termed "assistant sub-inspectors." These officers are on low pay, but are, in many cases, of similar qualification with the sub-inspectors. They sometimes have separate areas and sometimes are under the general control of a sub-inspector. The only reason for their existence is economy. The average number of schools per sub-inspector (including assistant sub-inspectors) is 172.

40. In order to give Muhammadans every chance to develop educationally, Government has recognised their special schools, called *maktabas* and madrassahs, by special grants. They are supervised by special sub-inspectors, and other special Muhammadan inspecting officers, while at headquarters there is a special "Assistant Director of Public Instruction for Muhammadan Education." A class of low grade inspecting officers, styled "inspecting maulvis" corresponds to the inspecting pandit mentioned above.

41. To sum up, education of all kinds is in the charge of one of the new Ministers appointed under the Reforms Scheme. Under him is a Deputy Secretary to Government, who is also Director of Public Instruction. The Director controls five Divisional Inspectors, who are assisted by "Second Inspectors" and "Assistant Inspectors," and control primary and middle education through District Deputy, Deputy, and Sub-Inspectors, as well as assistant sub-inspectors, inspecting pandits and inspecting maulvis. On the other hand, the primary schools form a part of the responsibilities of municipalities and of the union boards. These latter will work under the supervision of local and district boards. These in turn will be

controlled by a Secretary to Government in the Department of Local Self-Government, which is in the hands of a separate special Minister. The whole scheme may be viewed in the following form:—



42. Teachers.—In 1885 it was the intention that when the zilla schools were started they should be “normal,” that is showing the proper form of organisation, standard of work, staff, and methods of teaching. They were to be examples for new schools that might be started, and to them were to be attached teachers for training. If the “filtration” policy had been retained as the sole guide, this plan would perhaps have succeeded, but in the wide increase of the numbers of schools for which some responsibility was taken under Mr. Adam’s scheme, it became necessary to adopt some plan for turning out trained teachers more rapidly. In 1854, therefore, “normal schools” were started and have done good work in training teachers for middle schools and the lower departments of high schools.

43. Later on it was found necessary to proceed still more rapidly with training, and the "guru training schools" were started. These have taken in any teachers they were able to secure, the qualification often being only that of the lower primary school, viz., bare literacy, though a middle school standard is aimed at, and they do with this material what is possible in one or two years. All the *guru* training schools were staffed till recently by a head pandit on Rs. 18 and two others on Rs. 10 each, while the students could only be secured by the payment of Rs. 11 a month! These schools are being replaced by a more ambitious type under teachers trained in the Secondary Training Colleges assisted by two pandits on Rs. 30-1-50. Unfortunately in many cases these schools have been built where land was cheap because population was thin. The result has been that this fact, combined with the natural aversion of the people to having their children practised on by 40 *gurus* in training, has destroyed any chance of a real practising school. These "practising schools" are often the merest pretence having not more than a dozen on the rolls. Recently recourse has been had to practising students in neighbouring schools, but the distances to be walked by the students and their supervisors, and the difficulty of securing real school conditions during practice, seem to make the effort exceedingly difficult. Proposals are put forward in Chapter VI of this Report for a fundamental change of policy in this matter.

44. One more matter in this connexion calls for remark and that is the comparatively large percentage of trained *gurus* who fail to become *bond fide* teachers. Over 20 per cent. are estimated to go away into other work after Government has spent considerable sums on their training. The real

remedy lies in improving the prospects of the primary school teacher till he can with certainty earn more than, say, a day labourer. In the meantime I have been unable to distinguish easily between the work of the trained and the untrained teacher, though the former generally receives a monthly grant of Rs. 5 a month in excess of the latter. Indeed, I am coming to the conviction that the old fashioned method of the untrained pandit, who calls up individuals or small groups of children to say their lessons and then sends them back to repeat a new one till called up again, is possibly the most efficient in the existing primary schools, where one teacher often finds himself confronted with the impossible task of teaching 4 or 3 classes of children at once and keeping all occupied at the same time. A column shewing the number and recent increase of trained teachers will be found in Appendix E (b). In 1919-20 there were four "trained" teachers for every 19 primary schools.

45. Schools.—In 1835—39 Mr. Adam estimated that $7\frac{1}{2}$ per cent. of the children of school-going age were at school. A rough estimate now places it at 20·5 per cent. We are therefore still faced with a very serious condition of things in Bengal. Though the number of children at school in the 12 years 1900-01 to 1912-13 increased by 44·8 per cent. while the population only increased 7·9 per cent. and though the numbers in school in 1919-20 show an increase of 64·9 per cent. over those of 1900-01, still the fact remains that in 1919-20 the number of children of suitable age who were not at school was larger than in 1900-01. This appears the more grave when we consider that of the children who go to school only about one in five becomes really literate, and some of these lapse from literary after varying periods.

46. Of the number of schools there is nothing to complain. There is a school to every 1·7 square miles of Bengal, including its immense areas of jungle, water, and cultivation. This sort of calculation is without much value as a measure of the real state of primary education. I have come across subordinate inspecting officers who imagined it was a part of their duty merely to increase the number of schools, and were much less concerned as to the resulting number of children under instruction, or the efficiency of the instruction given. This tendency is shown in Appendix E (b) from which it will be seen that in 1919-20 the number of primary schools had increased by 10,278 as compared with 1914-15, and that of the pupils by only 185,622, or an average of 18 children per additional school, even if the whole of the increase were confined to them. The average strength of a school in 1914-15 was 34, and this was reduced in 1919-20 to 30.

47. The fact is that the starting of schools, with the exception of the Board lower primary schools, is left to private enterprise. A pandit, who may be a person almost wholly without educational qualification, may be needing some addition to a slender living eking out in some small trade or profession. He goes to a place where fees are to be obtained and opens a school, it may be on a benevolent patron's verandah, or in a bamboo and matting hut of his own. He then applies to the Municipality or District Board, and to the inspecting officer concerned for grants of various kinds. If he is financially successful it is quite possible that a rival will set up near at hand and they will enter into a mutually debilitating competition, instead of co-operating in one larger school. A glance at the map of the Union Board area in Appendix D will illustrate this condition of things, unremunerative and unenlightened areas remaining without schools.

48. It is my duty to make a critical survey of the situation, but I do not wish to create the impression that I am distributing indiscriminate blame to these unfortunate and wretchedly paid servants of the community. One cannot blame them, and some of them have justly earned most enviable local reputations for steady, honourable and intelligent work extending over many years. On the other hand it must be admitted that this is exceptional. In general, the position is this. The primary schools of the country are bad.

They are often used as crêches rather than as schools, and parents value them so little that, of 540,000 children in the first year Infant class, they remove nearly 170,000 after the first year, an additional 116,500 after the second year, and over four lakhs before the final year of the primary school is reached. Only a few schools have buildings of their own, and those are generally of poor quality. The equipment is almost always either defective or absent. The teachers are for the most part poorly qualified and worse paid. Indeed they are so badly paid that, in order to live at all, they have to earn outside the school at least as much as they earn inside it. When grants are given to teachers from public funds the people are inclined to consider that there is the less need for them to contribute towards their support and, as prices rise, this tendency is emphasised to the further undoing of the teacher.

49. A brief statistical review is given in this paragraph and the next of the existing condition of primary education in the different provinces of India, and particularly in the presidencies of Bengal, Madras and Bombay.

TABLE I.

(a) This table shows the number of primary schools and their scholars in the different provinces, the average strength of a primary school and the average number of square miles served by a boys' primary schools:—

NAME OF PROVINCE.	1915-16.										1917-18.		
	NUMBER OF PRIMARY SCHOOLS FOR—			NUMBER OF PUPILS IN PRIMARY SCHOOLS FOR—			AVERAGE STRENGTH OF PRIMARY SCHOOLS FOR—		Area in square miles, served by one Primary School for boys.	Number of Primary Schools (boys and girls).	Number of pupils (boys and girls).		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.			Boys.	Girls.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bengal	34,278	10,647	44,925	1,144,558	239,316	1,384,201	28·4	22·4	78,692	2·2	44,111	1,409,716	
Madras	29,552	3,057	32,009	1,250,796	180,193	1,430,989	41·7	33	142,330	4·7	31,722	1,401,774	
Bombay	10,647	1,321	11,968	608,200	92,004	701,604	37·1	30·8	123,065	11·9	11,142	650,430	
United Provinces	11,507	1,146	12,653	685,940	39,532	725,462	29·6	24·4	106,403	2·2	11,952	706,849	
Bihar and Orissa ...	23,082	2,600	25,682	639,192	60,182	699,396	37·5	23·1	83,382	3·6	25,827	711,715	
Punjab	5,172	951	6,123	246,771	42,919	289,690	47·7	42·1	99,251	19·1	6,088	782,489	
Delhi	120	19	139	5,786	798	6,584	48·5	42	575	4·7	...	...
Burma	6,253	963	7,316	206,382	33,767	230,630	32·4	34·6	230,630	30·3	7,214	347,986	
Central Provinces ...	2,541	224	4,165	207,506	18,207	225,713	67	56·1	99,623	22·9	6,109	286,770	
Assam	5,924	847	6,371	161,894	19,794	171,998	41·9	31·1	53,015	12·9	4,212	177,721	
North-West Frontier Province.	518	47	555	25,395	3,048	28,443	41	54·7	15,192	21·8	626	27,503	

It will be seen that Bengal has the largest number of primary schools and Madras the largest number of scholars. A comparison between the figures for the two years shows that although there was an increase in the number of primary schools in Bengal, there was a marked decline in the number of pupils. The average strength of a primary school in Bengal is less than that in almost all other provinces of India. Further, the number of square miles (average) served by a boys' primary school in Bengal is 2·2 and is less than the corresponding figure in any other province. This clearly goes to show that what is needed in Bengal is not an increase in the number of primary schools but their proper and systematic organisation and distribution on a well-defined plan. The financial difficulty involved in the acceptance of such a policy in Bengal is the first problem for solution; for in this province the existing expenditure on primary schools is deplorably low, as will appear from the table below.

TABLE II.

(b) The following table shows the total expenditure on primary schools, the average annual cost of teaching a pupil in a primary school and the average

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annual fee per pupil in a boys' primary school in the different provinces of India—

NAME OF PROVINCE.	1918-19.						1918-17.
	TOTAL EXPENDITURE FROM ALL SOURCES ON PRIMARY SCHOOLS FOR—			Average annual cost of teaching a pupil in a boys' primary school.	Average annual cost of teaching a pupil in a girls' primary school.	Average annual fee per pupil in a boys' primary school.	
	Boys.	Girls.	Total.				
	1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.
Bengal	...	40,63,090	7,39,666	48,02,756	3·5	3·0	1 11 0
Madras	...	66,51,368	13,88,014	80,39,382	5·3	9·2	0 9 9
Bombay	...	79,04,355	12,47,742	91,52,097	12·9*	13·3	0 11 11
United Provinces	...	31,42,953	3,23,349	34,66,302	4·5	8·1	0 7 0
Bihar and Orissa	...	27,44,096	3,06,050	30,50,146	4·3	5·0	1 9 3
Punjab	...	18,89,396	4,25,543	23,14,939	7·6	9·9	0 9 9
Delhi	...	75,993	12,764	88,757	13·1	15·9	...
Burma	...	9,43,936	1,73,124	11,17,060	4·5	5·1	0 11 5
Central Provinces	...	18,12,709	2,10,244	20,22,953	7·0	11·5	0 1 7
Assam	...	7,06,066	63,157	7,69,223	4·3	5·8	0 0 7
North-West Frontier Province.		2,23,103	35,156	2,58,259	8·7	11·5	0 0 2

* Now Rs. 15.

It will be seen from the above table that the cost of educating a pupil in either a boys' or a girls' primary school is smallest in Bengal. It has been already shown in Table I that the average strength of a primary school in Bengal is also comparatively low. The conviction that is forced on the mind is that the cost of primary education in Bengal is far below the lowest possible level of efficiency. It is, however, satisfactory to note that the rates of fees in primary schools of Bengal are higher than those in any other province. Thus the people in Bengal voluntarily contribute more to the cost of primary education than the people of other provinces. The expenditure from public sources in Bengal is, however, small in comparison with that in Bombay and Madras. This will appear from the table below.

TABLE III.

(c) This table shows the total expenditure on primary schools from different sources, the percentage of expenditure from different sources and the average expenditure per head of population from provincial revenues on primary schools:—

1918-19.

NAME OF PROVINCE.	TOTAL EXPENDITURE ON PRIMARY SCHOOLS FROM—						PERCENTAGE OF EXPENDITURE TO TOTAL EXPENDITURE FROM—				COST PER HEAD OF POPULATION FROM PROVINCIAL REVENUES IN PRIMARY SCHOOLS FOR—		
	Provincial revenues.	District funds.	Municipal funds.	Fees.	Other sources.	Total.	Provincial.	District.	Municipal.	Fees and private sources.			
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Boys.	Girls.
Bengal—													
For males	18,33,071	6,02,530	72,087	17,50,562	5,02,733	40,53,090	32·8	14·3	1·8	20·8	...	...	...
For females	3,25,396	1,49,145	29,899	64,015	1,81,211	7,39,886	44·0	20·3	4·0	31·3	...	...	...
Total	16,60,467	7,51,675	1,01,886	18,04,684	4,83,944	48,02,756	34·5	13·6	2·1	47·8	45,483,077	'029	'037
Madras—													
For males	34,37,367	11,29,600	5,54,182	7,01,115	10,60,206	66,51,368	51·5	17·0	5·0	26·5	...	...	...
For females	7,91,405	1,76,023	44,188	47,202	5,79,163	13,88,014	37·0	9·1	3·2	30·7	...	...	...
Total	42,18,672	12,05,623	5,58,370	17,48,318	14,39,369	80,39,382	52·0	15·8	4·7	37·2	41,405,404	'082	'013
Bombay—													
For males	52,16,978	4,32,916	11,75,625	4,31,457	6,47,279	79,04,355	62·0	5·5	14·9	13·6	...	...	...
For females	4,04,238	1,62,833	5,21,124	46,490	2,62,741	12,47,742	32·4	13·0	20·5	24·8	...	...	...
Total	56,21,214	5,95,751	15,46,659	4,77,953	9,10,320	91,32,097	61·4	6·0	16·0	13·2	19,653,229	'063	'02

It will appear from the above table that Madras, which has a population less than that of Bengal, contributes 51.5 per cent. from provincial revenues, 17.0 per cent. from district funds and 5.0 per cent. from municipal funds or a total of 73.5 per cent. from public sources to the expenditure on primary school for boys; and Bombay, which has a population less than half the population of Bengal, contributes 66.0, 5.5, 14.9 per cent. respectively, from the same sources, or a total of 86.4 per cent. from public sources; whereas Bengal contributes 32.8 per cent. from provincial revenues, 14.8 per cent. from district funds, 1.8 per cent. from municipal funds, or a total of 49.4 per cent. only from public sources to the expenditure on primary schools for boys. Moreover, the total expenditure on primary schools in Bengal compares very unfavourably with that either in Madras or in Bombay. The cost per head of population from provincial revenues is also very low in Bengal in comparison with Bombay and Madras. It is very desirable that the expenditure on primary schools of Bengal should be increased considerably and that Government should contribute more generously towards the cost of primary education in this province.

TABLE IV.

50. (a) This table shows the classification of primary schools according to the system of management in the presidencies of Bengal, Madras and Bombay:—

1918-19.

NAME OF PROVINCE.	UNDER PUBLIC MANAGEMENT.				UNDER PRIVATE MANAGEMENT.				Grand Total of Primary Schools.	Grand Total of Pupils.	Percentage of publicly managed schools.	Percentage of privately managed schools.				
	Managed by Government.		Managed by District and Municipal Boards.		Aided by Government or District or Municipal Boards.		Unaided.									
	Number of primary schools.	Number of pupils.	Number of primary schools.	Number of pupils.	Number of primary schools.	Number of pupils.	Number of primary schools.	Number of pupils.								
1	2	3	4	5	6	7	8	9	10	11	12	13				
Bengal—																
For males ...	123	4,326	2,846	117,124	27,609	918,107	2,700	105,428	24,278	1,144,885	...	...		
" females ...	68	2,780	28	929	8,645	197,757	1,906	37,850	10,647	239,316	...	...		
Total ...	191	7,106	2,874	117,953	36,254	1,115,864	4,606	143,278	44,926	1,384,201	6.9	93.1				
Madras—																
For males ...	231	12,579	7,356	422,140	19,507	735,849	2,858	80,258	29,952	1,250,796	...	...		
" females ...	201	24,605	831	47,746	957	75,397	88	4,450	3,047	350,198	...	...		
Total ...	432	37,124	8,187	469,886	20,454	809,246	2,946	84,738	52,009	1,400,994	16.9	73.1				
Bombay—																
For males ...	23	2,388	8,693	517,355	1,775	80,808	156	7,549	10,647	608,200	...	...		
" females ...	9	1,045	928	67,776	361	23,648	18	1,135	1,321	93,404	...	...		
Total ...	32	3,433	9,621	585,131	2,136	104,556	169	8,684	11,968	701,604	80.7	19.3				

It will be seen from the above table that the percentage of publicly managed primary schools in Bengal is only 6.9, in Madras it is 26.9 and in Bombay 80.7. This shows that in Bengal the local authorities have not yet taken up in full their responsibility in regard to mass education. The primary schools in this presidency are mainly of the teacher-manager type. They grow and die at the will of the teachers.

(b) The strongest impression left on the mind after carefully considering the state of primary education in Bengal is the lack of any definite systematisation which might enable us at any time, to judge how far the problem is really being solved and to ensure that the limited funds at our disposal are spent to the best possible effect. It is to the construction of such a system that we must now turn.

CHAPTER III.

System, Curriculum, Examinations.

51. **Definitions.**—In Chapters I and II an attempt has been made to establish the necessity for pressing forward with a policy which is directed towards securing universal literacy in Bengal as soon as possible, and to show what has been done to this end in the past, and what is being done at present, as well as the weaknesses that stand in the way of efficiency. It is now necessary to direct our attention towards the question as to how that policy can best be given form. It will prevent possible future misunderstanding if, before doing so, a clear meaning is attached to the use of certain terms.

52. "A literate" has been defined for census purposes as "a person who can write a letter to a friend and read his reply." It is probably desirable from the point of view of school purposes to add to that the power to use easily and quickly the first four rules in arithmetic.

53. There is a sense in which "Education" means a life-long process caused by the total experience of life. Again, the acquisition of a certain minimum of efficiency is demanded by the mature in every human society from those who have not yet reached maturity. The process of attaining this minimum of efficiency, whether at the plough-tail, in the shop, office or what not, may be regarded as "Education." A more usual use of the word than either of these is intended in this Report; viz., that education is the conscious, deliberate effort of the State, or of private individuals or societies, to bring to bear upon the child and the adolescent specific and organised influences, moral, physical and intellectual, which will, in the first place, develop their innate powers to the highest point possible in the circumstances; and, in the second, fit them for some definite place and function in the society to which they belong.

54. The terms "primary," "elementary" and "secondary," as applied to schools, are used loosely in various ways. Some regard primary and secondary education as essentially separate and distinct in character from beginning to end with different aims and methods. The children of primary schools are, on this view, of a different social class from the others, and are from the first devoted to a lower destiny. This view was held in England for many years and remains entrenched in the "preparatory" and "public" schools there; but even in England it is gradually being replaced by another, viz., that the earlier parts of school work should be called "primary" or "elementary," and the later parts "secondary." This latter view is commonly accepted in Scotland, and in most of the British nations, as well as in America, though it is, of course, admitted that some schools, whether primary or secondary, will have a wider curriculum, and better teachers and equipment than others at the same stage.

55. The Bengal Primary Education Act of 1919 (hereinafter referred to as the "Education Act") in section 2(5) leaves the definition to the prescription of the Education Department. It has to be remembered that "middle schools" in Bengal are hardly as high in standard as the elementary schools of the West, yet we have generally applied the term "secondary" to them. It is here suggested that all education up to the top of the middle school should be described as "elementary," and all school education above it (including that given in intermediate colleges) should be called "secondary." Elementary education in this sense might be divided into "primary" and "middle," while "lower primary" might be regarded as leading on the one hand to an "upper primary" finishing class or classes, and on the other to the middle classes.

56. The teaching of English has now been authorised even in primary schools in which teachers qualified to give instruction in it are found. Middle vernacular schools are rapidly dying away for want of it. The way in which the distinction between "Vernacular" and "English"

schools arose has been indicated in paragraph 34 above. The distinction has now no real force. All schools should be truly "vernacular," and in as many as possible English should be taught as a special subject, and possibly used as a medium of instruction to some extent in the higher schools. It may conceivably be the most important of the subjects of school instruction, but there is no reason why its presence or absence should complicate the administrative machinery and differentiate schools into separate categories.

57. Classification.—The existing state of things may be compared with the proposed system in the table shewn below, the “present” part of which is taken from the “Rules and Orders of the Education Department, Bengal” (5th Edition, Chapter III):—

PRESENT.					PROPOSED.									
Eastern Bengal.					Western Bengal.					All Bengal.				
STAGE.					STAGE.					STAGE.				
High Class.	M. E. Class.	M. V. Class.	U. P. Class.	L. P. Class.	High Stnd.	M. E. Stnd.	M. V. Stnd.	U. P. Stnd.	L. P. Stnd.	XII	XI	X	Inter- Coll.	
X	...	...	...	...	I	...	...	...	...	IX	...	...
IX	...	...	...	...	II	...	...	...	...	VIII	(b) VIII	VII	"	"
VIII	...	...	...	...	III	...	...	...	...	VII	VII	VI	High.	
VII	...	...	...	...	IV	...	...	...	...	V	V	IV	Middle.	
VI	VI	VII	...	...	V	VI	VI	...	...	IV	IV	III		
V	V	VI	...	...	VI	V	V	...	...	V	V	II		
IV	IV	V	V	...	VIIIB	IV	IV	IV	...	III	III	II		
III(a)	III(a)	IV	IV	IV	VIIIA	III(a)	III(a)	III	III	II	II	II		
II	II	III	III	III	VIIIA	II	II	II	II	I	I	I		
I	I	II	II	II	VIIIB	I	I	I	I	Infants	2nd Yr.	2nd Yr.	Lower	
...	...	I { 2nd Yr.	I { 2nd Yr.	I { 2nd Yr.	2nd Yr.	2nd Yr.	2nd Yr.	2nd Yr.	2nd Yr.	Infants	1st Yr.	1st Yr.	Primary.	
		1st Yr.	1st Yr.	1st Yr.	1st Yr.	1st Yr.	1st Yr.	1st Yr.	1st Yr.		1st Yr.			

(a) English is begun in these classes.

(b) The Calcutta University has passed a resolution that the Matriculation examination should be taken at about the age of 14 years, so as to allow of a 4 years' uninterrupted course before entry to the University.

(c) An Upper Primary, or Primary Final finishing class will be parallel with Class III and will be similar to it in some subjects, but will be semi-vocational in others, i.e. the curriculum will include :—

A. Compulsory :—(i) Vernacular reading of printed matter, manuscripts and documents connected with the boy's future work (e.g. leases, petitions, agreements, circulars on co-operative credit, agriculture, etc.)
 (ii) Vernacular composition and letter writing
 (iii) Tables, mental calculations (Indian and English methods), simple mensuration, bazaar and zamindari accounts.

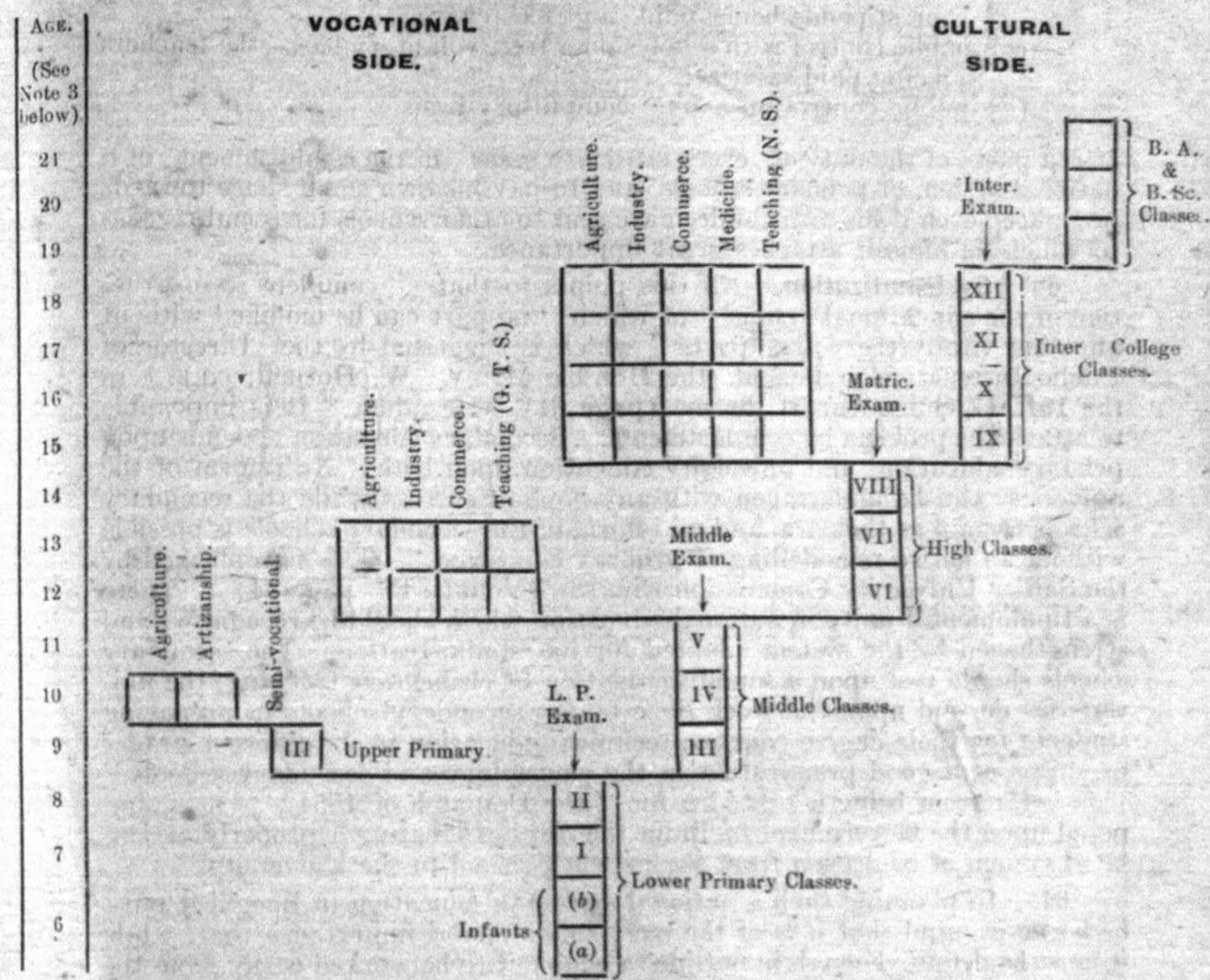
B. Optional :—English, Agricultural Nature Study, Manual Work, Hygiene, Drawing, Geography History and Physical Exercise.

B. Optional:—English, Agricultural Nature Study, Manual Work, Hygiene, Drawing, Geography, History and Physical Exercise.

58. Free and Compulsory Education.—It is perhaps unnecessary in the twentieth century to enter upon a long argument concerning the responsibility of the State in education. It is now universally admitted that the aggregate value of the individuals composing a nation is ultimately the value of that State. It follows that the State should use its best endeavours to destroy ignorance and to create efficiency among its people, and we have seen that the spread of literacy is in these days the first step towards this end. The attainment of literacy by all involves the setting up of a public system of at least primary schools. This does not mean that every citizen is to be forced into those schools, but it does mean that if the minimum is not attained privately, it must be attained in the schools of the nation. But poverty may be pleaded as an obstacle. The schools must therefore be free. The will to attend may still be lacking. In that case compulsion must be resorted to, for it has become "a necessary precaution of prudent statesmanship." The District Board Conference held in January 1921 resolved that "the intention of making primary education free and compulsory as soon as possible be accepted as a directive idea." The Education Act of 1919 has gone so far as to make it possible for a public body to apply for permission to make primary education compulsory in its area, or in any part thereof. This cannot be made effective till parents in such an area can be assured of the existence of a suitable and efficient free school within a mile of their

DIAGRAM I.

A Co-ordinated National System of Schools.



NOTES.

(1) In class II a boy should be literate in his vernacular, and preferably should have some elementary knowledge of English. He should be able to use the first four rules in arithmetic.

(2) In class III (U.P.) on the vocational side a boy's primary education will be rounded off. The character of the class should be semi-vocational and the curriculum should include—

A. *Compulsory*.—(i) Vernacular reading of printed matter, manuscripts and documents connected with his future work (e.g., leases, petitions, agreements, circulars on co-operative credit, agriculture, etc.).

(ii) Vernacular composition and letter-writing.

(iii) Tables, mental calculations (Indian and English methods), simple mensuration, bazaar and zamindary accounts.

B. *Optional*.—English, Agricultural Nature Study, Manual Work, Hygiene, Drawing, Geography, History and Physical Exercise.

(3) After the Upper Primary stage a boy should enter a definitely vocational class intended to give him skill and knowledge in his future work. Boys entering these classes will generally be older than is shown in the diagram above.

(4) This proposed arrangement of classes up to X is intended to correspond with that laid down in Volume V of the "Statistics of British India," new Table No. 19.

(5) It is important to distinguish between manual work taught for its cultural value in training brain, hand, and eye for co-ordinated activity on the one hand, and manual work taught with a vocational end in view, i.e., to fit a boy for his calling in after life as a carpenter, blacksmith, etc.

abode. The schools at present arise to suit the convenience of private persons.

59. Four stages of our policy must therefore be contemplated:—

- (a) the present plan of private enterprise assisted by grants and largely supported by fees;
- (b) a system of public (Union Board or Municipal) control, salaries or stipends being paid, and fees charged;
- (c) public control with schools on a free, voluntary basis, the teachers being paid salaries;
- (d) public control on a free, compulsory basis.

It is a part of the duty of every citizen to assist in the establishment of a national system of primary schools, and to pay his own small share towards its upkeep even if his own children are sent to other schools for social reasons to which he himself attaches great importance.

60. **Systematization.**—All this points to that “complete reconstruction of the educational system” of which “no part can be modified without affecting vitally the other parts” which is suggested by the Director of Public Instruction in Bengal (the Hon’ble Mr. W. W. Hornell, C.I.E.,) in the 1912-17 Quinquennial Review (page 61). He adds: “It is impossible to attack the problem by compartments. Secondary education depends upon primary education, and university education upon both. No reform of the university can be undertaken with any hope of success while the secondary schools remain as they are, and no reform of the secondary schools is possible without an entire remodelling of primary education.” This is confirmed by the Sadler University Commission who say (Volume IV, page 34): “There is a fundamental unity in national education which should be recognised and strengthened by the system adopted for its administration. The secondary schools should rest upon a sound foundation of elementary teaching; the universities depend upon the work done by the secondary schools in preparing students for their degree courses; technical education in its different grades presupposes a good preparation in the elementary and secondary schools.” This is far from being a new idea for “the Despatch of 1854 . . . imposed upon the Government of India the duty of creating a properly articulated system of education from the primary school to the University.”

61. In planning such a national system of education in Bengal it must be borne in mind that it is of the most fundamental importance that, while it must be definite enough in outline to enable it to be worked easily from the administrative point of view, it should be elastic enough to admit of provision being made to meet the special needs of any locality, or of any substantial section of the community. Special payment may reasonably be demanded for special requirements, but they should be possible within the system.

62. It is also of very great importance that the purpose of each part of the system should be clearly understood; and that each part should be so articulated with the whole as to form one co-ordinated system, the meaning of which should be comprehended by every family in every village community.

63. **The Principle of Co-ordination.**—The system will be broadly divisible into two parts according to the *character* of the instruction given, viz.—

(1) The Cultural side, and (2) the Vocational side. On the cultural side it will be divided into five parts according to the *stage* of the instruction given, viz :—

(I) Primary,
(II) Middle,

| (III) High,
(IV) Intermediate College,
(V) University,

and each of these stages will be followed by appropriate semi-vocational and vocational completing courses intended to fit pupils for some definite work in life. The exact arrangement to be adopted will be a matter for much consideration. Diagram I on page 21 is intended to show a possible co-ordinated scheme of a purely suggestive character in illustration of the sort of thing that is proposed. Too strict attention must not be given to the ages

of the pupils especially on the vocational side. The age stated is meant to show what would be normal on the cultural side. In this connexion a reference may be made to the Table in paragraph 57 above.

64. We are here concerned only with the lowest part of the system. The definite aim of the lower primary classes should be to make a child literate. Of course the better schools with Kindergarten departments and well trained teachers will be able to give a child far more than this minimum, but the minimum must be stated. It is the acquisition of that skill in reading, writing and reckoning which is instrumental in the attainment of all further progress in modern education, whether cultural or vocational. The acquisition of this skill should be the duty and right of all the people. The recent Missionary Commission on village education in India were right in saying, "We do not think that agriculture or industry can be rightly taught in the primary grade," though there is no objection to part of their reading matter and their examples in arithmetic being definitely connected with these subjects.

65. **A Lower Primary Examination.**—The gate from the lower primary school into the upper primary or middle departments should be an examination. In paragraph 30 above it has been stated that the opinion of the country is practically unanimous in demanding the restoration of this examination. The reasons against such a proposal that are generally put forward are three:—

- (a) the child is too young at this stage to be subjected to the strain of a public examination, and cramming will be resorted to in order to bring him up to the standard;
- (b) the subjects that do not form part of the test will be neglected, and the curriculum sadly narrowed down;
- (c) it will be impossible to conduct so enormous an examination.

66. In answer to the first objection it may be said that reading, writing, and arithmetic at this primitive stage are far more matters of skill than of knowledge, and "cramming" can only mean that that skill is more rapidly acquired than would otherwise have been the case, and this is exactly what we desire. The second objection is a more serious one, but as a matter of fact the present system has not had any marked effect in securing any real attention to those subjects which widen the curriculum. The fact of the holding of an examination does not mean that praise and blame after inspection will cease to have their effect, and later on it may be found possible to extend the scope of the examination so as to include a simple oral test in any subjects that may be offered, or to abolish it altogether if such a course becomes advisable. In the proposals now being put forward the teachers are to be placed on the footing of public servants with better pay, and there will be more chance of training them to take a pride in their work, especially in the larger schools with well-qualified head masters in charge of them. As to the third objection, I have consulted a very large number of inspecting officers regarding the practicability of holding the examination. The large majority have expressed the view that with careful organisation it would be possible. In the present miscellaneous condition of primary education I am still inclined to think it would be very difficult. My recommendation is therefore that departmental sanction should be accorded, and rules drawn up for the conduct of the examination, but that permission to hold it should only be given to such municipalities and union boards as shall have instituted a co-ordinated system of public schools of a character that is satisfactory to the department. Only the boys of the highest class in each school would be examined.

67. The method of conducting the examination would be as follows. Centres would be determined upon, probably one in each municipality, and one in each single, or in two or three co-operating union board areas. It would be held in the holidays, preferably in the cold weather when locomotion is easy, at the higher schools with which the primary schools consider themselves to be articulated. The numbers from each school would not be large and the time of examination would be arranged so that the teacher could return home with his boys, who would belong to the top class only, the same

evening. The examiners would be neighbouring high and middle school teachers, and several groups of about 15 or 20 boys could be examined at the same time in different rooms. At first all the boys would be set to work out sums, and to write a letter or essay in the vernacular, possibly under headings given by the examiner. While this was being done the boys would be called up individually for oral tests in mental arithmetic and reading. They would all then receive a dictation test together. The whole examination of each batch need not take more than one and a half hours, and several batches could be done in each room by each examiner in a day. The organisation of the affair and the public interest created would in themselves have an educational effect in the neighbourhood.

68. The examination would be organised by the Sub-Inspectors and could be made to pay for itself. I am told that it would be so popular that people would gladly pay eight annas as an admission fee. In some districts a rupee was not considered too much. Two annas might be used for a certificate, two for ink, paper, etc, two as an honorarium to the examiner, and two as a small reward to the teacher. If the money could be found it might be politic for Government to offer an additional two annas for the examiner and for the teacher. This would not be a part of the pay of the latter, but a reward additional to it. All the teachers concerned would be those of the national system, and in receipt of fixed pay.

69. The advantages of the institution of such an examination are obvious:—

- (a) It would satisfy a popular demand. The recent District Board Conference passed with acclamation a resolution, "That a primary school examination should be re-instituted."
- (b) It would, as it did before, "galvanise the system of education into new life by infusing into it a healthy spirit of competition."
- (c) It would expand the numbers at school and form an incentive for keeping them there to the end of the course.
- (d) It would take the boys to the higher school for an exciting visit at a critical moment in their lives, and might well fire their ardour to go on further, especially if the scholarships were awarded on the results of the examination.
- (e) It would create a common standard by which the teachers could test their own work.
- (f) It would serve as a rapid form of inspection of a large number of the top classes of schools.
- (g) It would be an inducement to authorities in unorganised areas to deal systematically with primary education so as to qualify to take part in the test.

70. **Semi-Vocational Final Class.**—But the mere attainment of literacy has been shewn to be dangerous or of doubtful value in itself, and an effort must be made to secure good fruit from the labour and expense involved in producing it. The present upper primary class in Eastern Bengal is occupied with little more than a revision of previous work included in which is a good deal of material that is not suitable for small children. All these semi-vocational subjects (which are admittedly, even at the final primary stage, a little premature from the point of view of a boy's own development but which have to be learned before he goes to his life's work) should be relegated to the final year of the upper primary school. The course of the primary school would be rounded off by this means, and by its usefulness and direct bearing on the boy's future occupation should prove attractive to parents. The subjects referred to are set forth in note 2 of Diagram I. (on page 21). At the same time the general enlightenment of the boy would proceed for the extra year or years of the upper primary course. Although it is the intention of this Report only to attempt to solve the problem of the systematization of lower primary schools, it is clear that, once the system is established, it will be easy to raise them to the upper primary standard at very little additional cost, and so to give some economic meaning to the schools by the semi-vocational character of the instruction given in the final primary class.

71. But even this is inadequate. The boy who leaves school at so early an age might possibly lapse into illiteracy again and would have no particular reason for keeping up his powers of reading and writing. It is therefore absolutely necessary that he should go on to some definitely vocational (industrial or agricultural) institution if he is good enough to be worth the extra trouble. Whether he should go on at once or wait for a year or two is a difficult question. If he is a big boy accustomed to helping his father at his work, as is often the case, there is every reason for his going on at once so as not to run the risk of losing what he has already learned. If, however, he is only ten years of age he will scarcely be able to manipulate the implements or tools used in his work. If possible, he should go on to the middle stage of school life, and thence to a higher vocational training. Generally speaking, parents will not agree to this, grudging the loss of his help for so long a period. In this case it would better for him to stay with his father for a year or two for, as the Indian Industrial Commission have said: "It is important to remember that theoretical training is doubly valuable when given to a student who has in his mind a definite picture of the conditions under which it will be applied." This period must not be long enough to allow him to form rooted bad habits, or to risk wholly losing his hardly acquired powers of reading and writing. These might be kept up by interesting forms of reading, etc., in night schools (*e.g.*, reading explanatory sentences thrown on a lantern screen in the course of a series of pictures). When big enough he would enter the vocational elementary school and, having polished up his three r's, would be given skill and knowledge to some degree in advance of his father's standard which he himself would by this time have almost reached. In this way agriculture and industry would be continually receiving fresh stimuli from well trained recruits. The nature of these vocational institutions is discussed in the next chapter.

72. It may be that a boy may win a scholarship at the top of the lower primary school, or that his parents may have enough money and goodwill to send him further up the "cultural" or general branch of the national system into the middle classes (see Diagram I, on page 21) after passing the lower primary school examination. Here he will complete his elementary education and will be able to choose once more between a vocational completing, or a general cultural course. It is not necessary to follow him further. Diagram I makes plain what is intended in the system. The general idea is that each school stage shall be definitely linked with some vocational course of training.

73. **School areas.**—It has been shown that a properly co-ordinated national system of education is needed, of which the function of each part should be clearly understood. The size and nature of the schools in the lower primary part of the system now call for determination. At present the average size of the primary school in Bengal is 30 children. They are mainly staffed by one teacher who has to teach children at every stage of progress at one time. All rural educational systems suffer to some extent from disadvantages of this kind. In some countries they are overcome by the organisation of transport, or boarding arrangements and so forth. In Bengal we can only count upon a small amount of water transport and nothing else, so that our system must be such as to allow of a child walking daily to school. The Education Act contemplates boys of 6 to 10 years of age walking up to one mile. Some, even girls, do this now, but in the majority of cases half a mile is considered about as much as can reasonably be expected in the climatic conditions of the plains of Bengal. School areas comprised in circles of half a mile radius are taken as our standard here; allowance being made for the existence of impassable barriers. The extreme case is the child of six years who is half a mile in a direct line from the school. Most of the children will be more than six years of age and will live nearer to the school than half a mile's distance.

74. In thickly populated industrial towns where there is much traffic on the roads much smaller circles can be taken if it can be shown that within each enough children of primary school age are to be found to form an effective school; but even in such towns the multiplication of schools can easily be overdone. Howrah, for instance, has 87 boys' primary schools where 17

DIAGRAM II.

Comparison of a large School with a Small One.

(a)	L. P. School. 300 children.	Classes.	No. of sections,	No. of children.	No. of teachers.	Staff.	Rs.
		II	1	30	1	Head Teacher	40
		I	2	60	2	3 Assistants at Rs. 25 each	75
		Infants (b)	3	90	3	3 „ „ „ 20 „	60
		Infants (a)	4	120	4	3 „ „ „ 15 „	45
			—	10	—	Total	220
				300	10	Contgys. menials and prizes	30
				—	—	Total recurring cost	250 per mensem or Rs. 3,000 per annum, <i>i.e.</i> , Rs. 10 per child per annum.

(b)

L. P. School.

100 children.

		II	1	10	1	Staff.	Rs.
		I	1	20	1	Head Teacher	30
		Infants (b)	1	30	1	1 Assistant	25
		Infants (a)	2	40	2	1 Do. ...	20
			—	5	—	1 Do. ...	15
				100	4	Total	90
				—	—	Contingencies, etc.	10
					—	Total recurring cost	100 per mensem or Rs. 1,200 per annum, <i>i.e.</i> , Rs. 12 per child per annum.

could be made to meet all requirements. In Cossipore-Chitpur, here are no less than 15 schools within a radius of a quarter of a mile, and yet only half the children within that circle are at school. The tradition of the country with regard to primary schools is that they should be quite small and close to everyone's door. The mother likes to watch her little son from behind her purdah, and to see him practically arrive at the school. It is contended, with doubtful correctness, that in a small school the teacher can get to know all the children better than in a large one. A patron who "founds" a primary school, and possibly lends a shed or verandah for it, likes to feel that it is *his* school, and enjoys his power over the teacher who often acts as private tutor to his children, or renders some other small services in consideration of receiving free board. Further, special religious ideas are sometimes embodied in a particular school, and it is felt that these would be swamped in a larger and more mixed institution. All these considerations have some force and have been duly weighed before the policy of small schools has been set aside. Some such schools must necessarily exist, but generally speaking, they belong to a simple, leisured past, and all concerned will have to come to the point that it is not the past, but the anxious present and the doubtful future that we have to face.

75. **The principle of concentration.**—In Diagram II (on page 26) will be found two figures which are intended to assist in the comparison of a large school with a smaller one. It is not contended, or even hoped, that schools of 300 can be brought into being everywhere, though a primary school exists in Zinzira Union near Dacca which contains over 300 children. The marvel increases when it is discovered that they are all girls, and rises to amazement when it is realised that they are all Muhammadan girls. It is true that a pious and generous gentleman, Khan Sahib Maulvi Hafez Muhammad Hussain, in addition to many other good works, pays each girl one rupee a month to be present, but that does not alter the fact that such a phenomenon as a school of 300 children is possible even in a rural area in spite of the physical difficulties that have to be overcome. In other countries there is nothing surprising in the existence of a primary school of 300 children, or indeed far larger ones. The general proposition here advanced is that a few large schools are more economical and efficient in many ways than a corresponding number of smaller ones. Referring to Diagram II, attention is invited to the following points of comparison, in each of which the large school has the advantage.

76. Each figure represents a lower primary school of four classes numbered from the bottom upwards. In the large school the lowest class has four parallel sections, the next three, the next two, and the highest one section of 30 children. In the smaller school one-third of the numbers in the larger school naturally appear in each stage. Forty infants is too large a number for one junior teacher, they have therefore been divided into two sections of 20 each. Infant (b) class has 30 children, class I 20, and class II 10. The comparison should be effected under the following heads:—

- (i) **Teaching efficiency.**—Thirty children may be regarded as an ideal number to be taught by one teacher provided they are all at the same stage of progress. This is fulfilled in each of the 10 sections of the larger school. In the smaller school teaching power is wasted in the two sections of the Infant (a), class, while classes I and II must be taken at the same time by one teacher whose attention is divided between them. From a purely educational point of view the advantage rests with the larger school.
- (ii) **Number of teachers.**—In the larger school each section can be given one teacher making a total of ten teachers. In the smaller school, even after combining two classes under one person, four teachers are required, or 12 teachers in three schools of 100 as compared with 10 in one school of 300.
- (iii) **Recurring cost per child.**—A school of 300 boys will need to be controlled by a good teacher. A well trained Normal School man, a trained Matriculate or even an Intermediate passed man

can be found for Rs. 40. Allowing for a Headmaster on Rs. 40, 3 teachers each on Rs. 25, 3 each on Rs. 20 and 3 juniors each on Rs. 15, and allowing Rs. 30 for contingencies, menials and prizes, the total monthly expenditure would be Rs. 250, or Rs. 3,000 per annum. This works out at Rs. 10 per child educated. The smaller school would have a less qualified headmaster. Allowing him Rs. 30 with three assistants on Rs. 25, Rs. 20 and Rs. 15 respectively, with Rs. 10 for contingencies and menials, the monthly cost is Rs. 100, or Rs. 1,200 per annum. The cost per boy educated is therefore Rs. 12. This shows a loss of Rs. 2 per boy as compared with the larger school. (It should be noted that even this higher cost is substantially lower than the average in the Bombay Presidency, see Table II, page 17).

- (iv) *Sites and buildings.*—It is cheaper to acquire a few somewhat larger sites than a large number of small ones. It is also certainly cheaper to build and equip a small number of larger buildings than a corresponding number of small ones. The outside of the plinth, the outer walls and the spread of the roof being proportionately cheaper in the former.
- (v) *Administration.*—An inspecting officer spends proportionately less time in travelling when visiting a small number of large schools, and a greater proportion of his time can be devoted to an actual examination of the work of the teachers and pupils. If the teachers were paid fixed salaries or stipends instead of grants-in-aid the subordinate inspecting staff would save much time and labour in the preparation of bills. From the administrative point of view therefore the large school has great advantages.
- (vi) *Special requirements.*—In schools containing several sections of the lower classes it is easier to arrange for special requirements, such as the teaching of the *Quoran*, the Hindu Classics, or of the Bible, while the better staff employed in the large school would be able to give instruction in English and other difficult subjects at the top of the school.
- (vii) *Training.*—Where there are several members of a staff the absence of one for training causes far less disturbance to the work of the school, than when one of two, or even the only one has to be taken away.
- (viii) *Future compulsion.*—Lastly, looking forward to the time when compulsion will be applied, concentration gives us the great advantage of a comparatively small number of centralised school areas in which compulsion can be much more easily effected than with a large number of unorganized *pathsalas* and *maktabas*.

It is fully realized that these arguments for concentration have greater force in the case of municipal than in non-municipal areas, but the principle applies in rural districts to a very large extent. In many villages there are several small schools where there might be one large, well staffed institution, and an effort towards concentration should always be made in working out systems for Union Board areas.

77. Method of applying policy.—We have seen that two main principles are necessary for building up a national system of elementary education for Bengal. The first is *co-ordination* among its parts, the object of each of which is to be clearly defined; and the second is the *concentration* of the largest number of children in the smallest possible number of schools, with possibly an upward limit of 300 children per school. A third principle which needs to be observed is that of the proper *distribution* of the schools. This will vary very widely according to the geographical conditions which have so large a determining effect upon the density of the population of each locality. The dry regions of Midnapore are quite different from the water-logged regions of the Sunderbunds, and from the mighty hills of Darjeeling.

In some parts the population straggles along both banks of a river where the ground is comparatively high, the crossing of the stream forming a serious obstacle in the way of concentration; in others at certain times of the year the hamlets are seen standing out like islands in a wide stretch of water. In some parts there cluster crowds of labourers in "lines" or "bustees," in others single families are dotted over a plain that reaches to the horizon.

78. All this shows how vain are paper calculations based on considerations such as that of the number of schools per square mile. In distributing schools we should leave severely alone all places that lack population, even if the land is cheap, and put the schools in centres of population so that every family has a school within half a mile in a direct line. In this distribution we must also make allowance for impassable barriers. The procedure is simple in practice whether for municipal or union board areas:—

- (a) On a map of the area all uninhabited parts should be shaded out leaving populated areas plain.
- (b) Impassable barriers should be noted and marked in blue pencil, and, having regard to these, the populated area should be covered with circles each of a half mile radius. Each circle constitutes a "school area."
- (c) The centre of the circle is the spot in the neighbourhood of which must be sought the site for the school. It must be examined to see whether land is available near at hand, whether it is suitable for a school, and what it would cost.
- (d) It is now necessary to determine how many boys of primary school age of all classes and creeds are to be found in each school area. If this number exceeds 300, a subdivision of the area will have to be made with a view to the special needs of the locality. If the number is not more than 300 a decision should be made as to the number for which a building is necessary.
- (e) A decision must next be reached as to the most suitable and economical type of building for the locality, and an estimate made of the cost per square foot of plinth area, and of the necessary equipment.

79. The greatest care is required in doing this work as these school areas should be fixed practically for all time. Every further advance in standard, and all expenditure of public for elementary education should be considered almost exclusively in relation to these school areas with their central national schools, and the schools with which they are co-ordinated. The buildings so erected should be used for as many public purposes as possible. Girls' schools could be held in them in the early morning and adult schools at night. They could be used for meetings and lectures by the officers of various departments connected with social welfare.

80. The method outlined above met with the unanimous approval of the recent Conference of non-official representatives of the District Boards. It is to be expected that it will be resisted by some of the existing teachers who are conducting schools for their own private interest and who would not be suited by any attempt to bring them under real control in a public system. Most teachers on the other hand would welcome the change which would give them relief from the carking cares of fee collection and the assessment of grants of several kinds.

81. It is sometimes found on making these arrangements that small patches of population cannot be included within any of the school areas of a particular locality. In such cases small schools could be established for the infant sections, the boys walking rather more than half a mile when they are big enough. Such small isolated schools in poor places might possibly be given grants to enable them to survive, but they should only be encouraged when really necessary. A population of 500 people, or a school roll of 35 might be taken as the minimum for the establishment of a public primary school. In the next chapter the religious and certain other social difficulties connected with the scheme are discussed.

82. Before leaving the subject of the systematization and co-ordination of schools it will be well to refer to its effect upon the middle and high schools. The net having been spread over the whole country, there will certainly be an increase in the numbers going on to the middle classes for the continuation of their elementary education on the cultural side. Some of the weaker high schools, which are found to be unnecessary in a co-ordinated system, might be converted into middle schools, and the three high classes (Diagram I, page 21) centralized for as wide an area as possible. New high schools would be opened in convenient places where necessary. Some of these centralized high schools would have the four intermediate college classes added to them, and some would remain in loose association with one or more middle schools; but the division for administrative purposes would be between the middle and high classes, and not between the high and the intermediate. This point is elaborated in Chapter VIII. The ultimate aim and, it is to be feared, somewhat remote hope, would be gradually to raise all primary schools to the full elementary status by the addition of middle classes.

83. Examples of schemes worked out in detail illustrating the application of these ideas to (a) Howrah, a thickly, populated municipality; (b) Rangpur, a typical mofussil municipality—the first in Bengal to adopt the scheme and apply for permission to levy a cess; and (c) Subhadra Union Board area will be found in Appendices C and D, respectively.

CHAPTER IV.

Religious and Other Special Requirements.

84. **Popular wishes.**—It has been shewn in the preceding Chapter that, if efficiency is to be attained in the elementary schools, a national system will have to be organised. This will have to be so constructed as to meet the reasonable requirements of the people, and not the people forced into conformity with a paper scheme. It has to be remembered that especially in India the religious requirements are among those which claim the foremost place and, in the case of some sections of the people, the very first, if not the only desideratum of an educational system. It would surely be carrying discretion too far to decline to attempt to include in a national system of primary schools for Bengal that which very many of the people most desire to see in them.

85. Recognising how little a foreigner can know of the deepest emotions of another nation, one's attitude in taking up the question at all must be one of apology; but to refuse to deal with it would be pusillanimous in view of its very great importance. The reproach that the schools are "godless" is a common one. It is easy to meet it in argument, but this is not a case for argument; it is a matter in which the strongest and deepest feelings of parents towards their children on the one hand and their God on the other are concerned.

86. A first examination disposes one to recommend separate systems of education for the greater communities. The difficulties of Muhammadans in taking part in a general system of education have been sympathetically discussed by the Sadler Commission (Report, Vol. I, Chap. VI, page 143). The tables quoted by them are reproduced below:—

Number of literates per 1,000.

DIVISION.	HINDUS.		MUSALMANS.	
	Males.	Females.	Males.	Females.
Dacca	238·8	29·5	60·1 1·5
Presidency	249·8	35·5	96·1 3·2
Burdwan	208·4	11·6	150·4 7·0
Chittagong	262·7	20·1	80·3 2·2
Rajshahi	130·5	9·4	76·7 1·7

Number of literates in English per 1,000.

DIVISION.	HINDUS.		MUSALMANS.	
	Males.	Females.	Males.	Females.
Dacca	36·9	·6	3·7 ·03
Presidency	62·5	1·8	7·9 ·1
Burdwan	26·5	·6	12·4 ·4
Chittagong	30·3	·5	4·6 ·04
Rajshahi	15·4	·2	4·4 ·02

87. These figures are as old as 1911. The figures for the census this year (1921) will probably show a large improvement on the Musalman side, but they are not yet available. The proportion of Musalmans in primary schools was 51·4 per cent. in 1918-19, so that at this stage of education they

have nearly reached their proper percentage according to their proportion of the general population, which is 52·7. Much of the primary school teaching of Musalmans is done in small *maktab*s in which the secular part of the teaching is usually very far from satisfactory. The number of *maktab*s in 1919 was 11,120; 8,312 being for boys, and 2,808 for girls. In these were 236,808 boys and 73,236 girls. Special grants are made for the benefit of these schools, with a view to making the aid given to them from District Boards 50 per cent. higher than that for ordinary primary schools. The geographical difficulties in the way of concentrating children in large schools, which have already been mentioned, are intensified by this religious difference. Yet it cannot be ignored. The school masters are often officers of the local mosques from which they draw a part of their remuneration, and they like to be near the mosque, for their ordinary religious duties are connected with it, and it is to the mosque that their clients come to see them. We should endeavour to make use of these men as far as can be arranged consistently with sound and regular work in the public schools. They should be encouraged to lead the Moslem boys in their regular daily religious exercises. The problem before us is this. We desire to give the Musalman children every facility to receive instruction in the prayers and tenets connected with their faith, and to exercise the observances which are incumbent upon them, such as praying once during school hours and, in especial, on Fridays. We also wish them to receive instruction through their reading books which shall not merely avoid giving religious offence but which, in part, shall have a definitely Moslem character. At the same time we wish these children to reap the secular benefits which flow from a well-ordered system of schools under efficient teachers.

88. In this connexion Resolution of the Governor of Bengal in Council, No. 1227 Education dated 3rd August 1916, is interesting:—“The development of the country, in political as well as in other directions, is dependent on the uniform educational progress of the two main constituents of the population (Hindu and Muhammadan) and on their equal capacity to take advantage both of the opportunities now open to them and of the fuller opportunities which may be available hereafter. The Government of India are anxious that all reasonable facilities should be provided for the education of Muhammadans, and the Governor in Council is convinced that it is in the interests both of the Government and the people as a whole that the Muhammadans who, in spite of recent efforts, have still much lost ground to make up, should receive such special facilities as may be necessary to enable them to benefit as fully as the Hindus from the educational institutions which are maintained wholly or partially out of public funds.”

89. The Advisory Committee for Muhammadan Education which met in 1914-15 (Report, page 16) recommended that it was “undesirable to develop further a system of education for this community separate from that of other communities. The existing systems should be carefully examined to see where they fail to satisfy members of the community, and necessary modifications should be introduced.” If the recommendation of my Report is accepted and it is decided to construct a complete national system of schools, the present is obviously the time to comply with this recommendation. The application of compulsion under the Act will be extremely difficult if this course is not taken. What then is the solution proposed?

90. So far as Moslems are concerned, it might be possible for them to arrange for their children to receive the necessary religious instruction in the early morning at the mosque or elsewhere, but they would, in the majority of cases, prefer that provision should also be made in the school. A reference to Diagram II on page 26 and to section (vi) of paragraph 76 above will show that in the larger schools it will be possible to have *maktab* sections of the lower classes, where this instruction is of the greatest importance. The number of such sections would depend upon the proportion of Moslem boys in the class. In these the Holy *Quoran*, the prayers, etc., could be taught and special additional or alternative Moslem readers used. Enough qualified Muhammadan teachers would be employed to meet this need. If these were not available it might be possible to arrange for a special

teacher to come from the mosque for one period a day (to be combined with the interval for prayer and recreation), to give the necessary instruction. In small schools the matter would be more difficult, but it could be met in this latter way if there was not a Moslem teacher on the staff. The special *maktab* grants that are now given might be used in giving allowances to visiting teachers of the kind here suggested.

91. The same arrangements might apply to other religions. I found a good many non-Christian people desirous of having Christian teaching for their children. I even found Hindu teachers giving instruction not only in stories from the Holy Bible, but actually teaching the Catechism of a particular Christian sect. Certain Hindu groups are also desirous of developing religious teaching suitable to school conditions, while many are anxious for their children to become familiar with the great Hindu religious classics.

92. There are certain elements of undoubted danger and difficulty in this proposal but, in view of the great advantages that would accrue from its success, it appears to be well worth a trial. Rules would have to be made to prevent the exhibition of religious symbols, or the use of sounds that might offend the feelings of others, or interfere with the orderly conduct of the school. Some one would have to be definitely responsible to judge of such matters whose authority would be final in any dispute, and to whom any innovation would have to be previously referred. The authority of the head master over the religious teacher while in the school would have to be vigorously maintained.

93. Certain municipalities were found quite willing to approve the conduct of one or more of their municipal schools by missionary societies on condition that certain sections should be organised for the benefit of children whose parents might object to their receiving dogmatic instruction. I found individual missionaries quite prepared to fall in with this proposal, but it would have to be referred to their own authorities before it could be regarded as a definite arrangement.

94. In most parts of the country I found the people broad-minded or democratic enough to have no objection to the mixing of children of different classes and creeds on the same benches, and I well remember a very distinguished and revered orthodox Brahmin Judge of the High Court telling me that one of the valued experiences of his life had been that of sitting beside, and competing with the son of an oilman in the *pathsala* of his childhood. In some places I found some objection. Where the feeling is strong it should be met either by the founding by the objectors of private schools wholly paid for by themselves, or possibly by arranging different sections of the school classes to meet the demand. Where vernaculars other than Bengali are required the same solutions may be applied.

95. The provision and conduct of primary education (*a*) on tea-gardens and (*b*) in mills, or districts populated by mill workers, constitute separate problems. The first has not been touched during the short time at my disposal, and the second is involved with so many other conditions connected with factory control that at this stage I am not prepared to offer any definite suggestions regarding the matter. The Education Act provides for introducing compulsion for boys of 6 to 10 years of age and the Factory Act lays down conditions for the employment of children of 9 to 14 years of age. The two Acts need to be considered in connexion with each other, and with the general question of the organisation of crèches and primary schools, as well as that of the provision of night schools for young adults, and their technical education. It is easy to make legal provision regarding children of special ages, but it is extremely difficult to make that provision effective in a country where individual births are not registered.

CHAPTER V.

Vocational Education.

96. **Education and Industry.**—The Sadler Commission made a careful and sympathetic study of the Bengali student with a mass of evidence before them which had been collected over a long period. They showed the qualities in which he excels, but also examined the characteristics which were said to be a cause of weakness (Vol. I, p. 121), “ . . . the Bengali student is judged by some of his fellow-countrymen who have made a life-long study of his powers to be deficient in the capacity for complex co-ordination, whether in the sphere of thought or of action. These observers detect in him a certain degree of weakness in the grasp of complex factors, in their adjustment to one another and in keeping them in equilibrium, be it in the study of a complicated intellectual problem or in the maintenance of an organisation. This defect is one of the impediments to the progress of the Bengali not only (though there are conspicuous exceptions) in the study of such subjects as sociology and economics, but also in complex industrial undertakings, in the wide but still too much neglected field of municipal enterprise, and in the responsible duties of commercial management upon a large scale.” The Commission described this as a “ most difficult problem ” but they did not despair of the solution of the economic problem largely through a sound system of education: “ By waging war against ignorance, the Swiss have alleviated poverty as well. But they succeeded in doing so only by thinking out at each stage what education should aim at, what kind of teaching it should provide, and how it may combine training for livelihood with training for life ” (Report, Vol. IV, p. 8).

97. The Bengal District Administration Commission of 1913-14 stated that “ in the 17th and 18th centuries the Gangetic Delta was a most important centre of trade and industry. It was perhaps owing to this very reason that the effects of Western competition were so severely felt in Bengal. Its inhabitants have not yet been able to adapt themselves to the new methods, while the ease and certainty with which investments can be made in landed property, combined with the fertility of the soil, on the one hand, and the free and extensive opportunities for the acquisition of a Western literary education on the other, have turned their energies in a less profitable direction.”

98. Mr. W. H. Moreland, C.S.I., C.I.E., formerly Director of Industries and Agriculture in the United Provinces, has recently written an article on Indian poverty and its causes. He thinks that at the end of the XVIth century India was almost as rich as she was before the war, but that the distribution of wealth was different, that is, the rich were richer and the poor were poorer. The XVIIth century was a period of impoverishment, through administrative exploitation which was also the historical cause of hoarding the precious metals. This grew worse in the XVIIIth century and probably reached its worst point between 1750 and 1800. At the beginning of the XIXth century India was desperately poor, but from that time improvement began through a removal of the former cause of poverty and the security of the people. If this is a true statement of the case it would account for the extraordinary power of the instinctive dislike of taxation which has been the suggestion of all their circumstances to the people over long periods in the now fortunately somewhat distant past. This can only be overcome by propaganda and general enlightenment, any new taxation being balanced as far as possible by results that are immediately visible.

99. Mr. Moreland thinks that “ India must aim at spending crores where she now spends lakhs, and even that will not be the end,” . . . “ to spend more you must earn more, and in order to earn more you must find out why you are earning so little.” The chief reasons, he thinks, are that capital is scarce, and labour inefficient. Indeed it appears to be true that, in spite of its low wages, Indian labour is very expensive. The people are less accustomed to “ cutting edges, nuts and bolts ” than to a “ stick and string régime ” owing to the weak state of the iron industry in former days. “ Agricultural reform, co-operation, development of industries . . .

stimuli to the productive energies of the people and their ultimate result will depend less on the material facilities which they offer, important as these are, than on the psychological influence which they bring to bear." In fact Mr. Moreland is of opinion that "India stands in urgent need of what almost amounts to an entirely new system of primary education" or, on our definition, elementary education.

100. The Indian Industrial Commission (Report, p. 96) declared that "the evidence tendered by employers was almost universally in favour of labour, both skilled and unskilled, that had at least received a primary education," its absence with "the prevailing low standard of comfort, and the effects of preventable disease" being the cause of inefficiency in the Indian workman. "The Commission expresses itself in favour of universal primary education . . . but education of a technical kind is also required, and the method of instruction to be followed will vary for workers in organised and for workers in cottage industries, the latter of whom, it may be remarked, considerably exceed the former in numbers." A reference may also be made to the proceedings of the Board of Agriculture for December 1917 [Appendix H (a) of this Report] which led to the founding of two experimental agricultural middle schools in Bengal.

101. From whatever point of view the general social problem which is before the people of Bengal is approached, it is clear that the organisation of a new and efficient system of primary schools is fundamental. It is also plain that to stop there would be worse than useless. The system of primary education must lead directly to specialised training in agriculture and industry with a view to making the greatest and best use of the human material of the country, to keeping some of its best brains fully and congenially occupied in agricultural occupations, and to drafting the surplus population to the towns, and that to proper conditions of life and work with opportunities of developing their powers to the fullest possible extent. This report has nothing to do with the higher branches of vocational training, except merely to indicate the manner in which they can be linked to the general system. The question before us in this chapter is how vocational education can best be provided at the elementary stage.

102. **What is Being Done.**—At present Government is experimenting at Chinsurah and Dacca with two agricultural middle schools which have been placed on Government farms under the Agricultural Department [*vide* Appendix H (c)]. The buildings at the former place are almost completed but the school is not yet open. At Dacca the school is open. The head master told me that before it was opened there were between 300 and 400 applications for admission, and that since it had been opened in about five months there had been over three thousand applications for the 30 places in the school. It is important that these schools should not be swamped with boys from classes which are not real agricultural working people, and that every endeavour should be used to get the pupils back to real agricultural work on the land, bringing new knowledge and skill to the fund of local efficiency. The experiment will, of course, receive very careful attention in every phase of its development, so that its results will be available for an extension of this class of school to other districts if such a course is found to be worth while. I was so unfortunate as to miss Mr. Maclean who is supervising the experiment at Dacca, so that I am unable to speak of the matter in detail, but it is clear that the future elementary agricultural school must be on a less costly scale than this one.

103. Regarding industrial training, it is plain that there are many kinds of technical instruction of a low grade that can be given to youths if only they are literate, and that this instruction increases the intelligence and exactitude of their work in a very great degree, making them worth far more in wages, and enabling their employers to effect economy in supervision and to turn out better work. All the evidence that I have been able to collect supports this, but the matter need not be laboured as the Report of the Industrial Commission on the point is conclusive. What arrangements ought to be made for this instruction is difficult to set down in general terms, for many industries prefer to give the necessary instruction in connexion with their own workshops, etc. All these loose ends are of very great value; and the

individuality and initiative of employers who work out schemes for their own employees in their own special spheres constitute perhaps the most valuable elements in the instruction given.

104. One example taken from the Report of the University Commission (Vol III, p. 116.) will suffice to show what is meant:—“ An excellent elementary industrial school which prepares some of its students for mining work is maintained by the East Indian Railway Company under the superintendence of Mr. G. C. Lathbury on the Giridih coal-field. The Company maintains on this coal-field four grades of schools—elementary, lower primary, upper primary, and industrial—for the benefit of the children of its workmen and miners. Selected boys from primary schools are sent to the industrial school which is attached to the colliery workshop. The course includes drawing, mechanics, mathematics, and the properties of metals; it lasts for three years and part of the time is spent in practical work in the shops. All the education is in the vernacular. There are fifty students and two teachers. The students are paid one anna three pies a day with an annual increase of an anna a day provided they pass the examinations and receive a satisfactory report. After passing the final examination the pupils enter the workshops, whence some of them are sent as fitter-assistants to the coal mines. They are subsequently promoted to the post of fitters-in-charge with the pay of a rupee a day. The training at the industrial school is in mechanical engineering rather than in mining. The work is elementary but on its lines it seems most successful and useful.”

105. Bearing in mind then that this is only technical work at the elementary stage (see Diagram I on page 21), it is for consideration whether there should be any attempt made to gather up the different lines of work and to standardise them for purposes of certification. The suggestion does not for a moment imply any limitation of initiative or control in the arrangements made by special firms for technical instruction, but only seeks to guarantee an added standard of general education and to assist employers in producing the results they themselves desire in the most effective manner by putting an advisory and co-ordinating machinery at their disposal, and by supplying them with suitable and willing human material from the country under properly regulated safeguards.

106. Beyond these spheres of individual effort for producing very special results there are more general forms of training which can be provided in institutions controlled by public authority. Technical education at the elementary stage for artisans is given at the following places:—

- (1) Sibpur (58 pupils).—Artisan classes in smithy, carpentry, fitting, turning, etc.
- (2) Dacca (81 pupils).— do.
- (3) Serampore (91 pupils).—Weaving, with design and analysis of cloth, drawing and dyeing.
- (4) Bankura (40 pupils).
- (5) Cox's Bazar (28 pupils).
- (6) Malda (60 pupils).
- (7) Pabna (40 pupils).
- (8) Tangail (61 pupils).
- (9) Bogra (45 pupils).—Carpentry, blacksmithy and tinsmithy.
- (10) Rangpur (33 pupils).—Carpentry, and blacksmithy.
- (11) Barisal (36 pupils).—Carpentry, blacksmithy, and tinsmithy.
- (12) Khulna (11 pupils).—Carpentry.
- (13) Comilla (57 pupils).—Carpentry, blacksmithy, tinsmithy, and moulding.
- (14) Nadia (C.M.S. Hatchapra Industrial School).
- (15) Faridpur (Australian Board of Baptist Foreign Missions).
- (16) Chittagong.
- (17) Kalimpong (lace 43, embroidery 38, weaving 40, carpentry 32, tailoring 17, gardening 2).
- (18) Kalimpong Branch Schools (lace 59, embroidery 15).
- (19) Baranagore.—Moulding, fitting, etc.

The general comment of the Director of Public Instruction (Quinquennia! Review, 1912-13 to 1916-17, p. 91) on these institutions is: “ Most of

the artisan schools are not very successful," though he makes certain exceptions which he attributes to the presence of "organising capacity." I was told that classes in iron and wood work had been started at Burdwan, but that not even all the scholarships generously provided by the Hon'ble Maharajadhiraja of Burdwan had been applied for by pupils, yet I was informed the next day at Suri that, in the Birbhum District (which adjoins Burdwan), there is a great dearth of carpenters and iron workers on account of the dying out from curious social causes of the castes who carry on these crafts.

107. All these institutions are working away quietly, but I have not been able to discover that any one concerned with them is very enthusiastic about their success, except perhaps at Sibpur, Dacca, Serampore, Faridpur, Baranagore, and Kalimpong. The headmasters of several of the schools at district headquarters with whom I have had conversations do not appear to think very much about their work as having a definite part and aim in the social economy of the district. Small as are the total numbers that are annually turned out from these schools and limited as their activities necessarily are, they cannot be regarded as solving the problem we are now considering, viz., that of giving point and finish to the training of primary school children.

108. In present conditions boys will not come forward indiscriminately for technical instruction. Enthusiasts have airily spoken and written to me about the setting up of technical schools in practically every village. This must be bluntly described as blind optimism if, indeed, optimism it really is. It is utterly impossible from a financial point of view and the teachers simply do not exist. If the boys were trained we should not know where to employ them, and to glut the market with trained carpenters would be almost as foolish as to glut it with trained pleaders. It is difficult to find a point of departure from which to approach the problem. In the mofussil are to be met officers of the Education Department (on the general and technical sides) and of the Agricultural, the Industrial, the Sanitary, the Veterinary and the Co-operative Societies Departments, all keen on their own work and often, it is to be feared, in proportion to that very keenness, raising anxieties in the minds of the people and of the district board and municipal authorities that their activities will have only one result—taxation of one kind or another. This fear has been explained in paragraph 98 above and is discussed further in the chapter on finance, but it may be mentioned here that it is very real and, combined with the natural conservatism of the people, and their ignorance of the aims of these departments, constitutes a serious obstacle to the full development and success of the work of any of them.

109. What appears to be needed is a concentration for the present in some part of the area over which all these forms of activity are spread. Energy is unfruitful at all points unless it can be applied in sufficient quantity at any particular point to accomplish its purpose at that point. Bengal is too vast a country to be grappled with all at once. If ideas can be focussed and made effective at a few places their acceptance at others will naturally follow. Energy applied in a form too dissipated to create the desired effect is merely a source of irritation. If this view be accepted then it follows that in a District no attempt will be made to scatter agricultural and industrial schools broadcast, though this may become possible at some future time when the way to such a policy has been felt by experiment, but that they will rather be few, large and efficient, and that they will be so situated as to be most easily accessible to all the people.

110. The following proposals are put forward with very great diffidence and hesitation, and with a feeling that the whole matter needs much discussion amongst representatives of all those departments of Government which, for want of a better term, may be called social development departments. In the main they are comprised among the subjects "transferred" to the new Ministers under the Reform Scheme.

111. It would be necessary in dealing with any District selected as the area for an experiment to secure the co-operation of the District, Local and Union Boards, as well as the Municipalities, to the fullest possible extent. The willing services of all the executive officers of Government would also be a vital necessity to success. Each Department would bring to the common

table the results of its own investigations into the needs of the District and its proposals as to how they could best be met. A united programme of social development could then be deliberately formed, and organised propaganda instituted. Such a combined campaign intelligently conducted would in itself have an immense educative effect in the District. The propagandists would very soon require a centre from which to go out and to which to return, and to which they could invite for demonstration and short courses of instruction anyone and everyone who might show evidences of a progressive tendency.

112. Social Welfare Centres.—Over 70 per cent. of the population of Bengal is concerned in agriculture so that the foundation of the life of the country is laid in this occupation. It would be natural therefore to make it basal in our plan. Government already has farms in different districts with a staff already at work in research, demonstration, seed distribution, and so forth. On two of these there are already agricultural schools. Associated with agriculture are certain essential trades, such as smithy, rough carpentry and building, and wheel-wrighting on the apparatus side; and oils, sugar refining, and dyes on the produce side, as well as many cottage industries such as rope and string making, netting, spinning, weaving, dyeing, basket making and sowing, which can be followed by the agriculturist and his family in their spare time. Instruction in these might well be added. They would be very useful in themselves and would be a means of combating the "disastrous contentment" of Indian workers, which tends to induce idleness as soon as a little prosperity comes, and the employment of hired labour in place of their own. And if these occupations are added it would probably be economical also to centralise elementary instruction for the District in the following:—metal work, steam fitting, cabinet making, painting, shoe-making, tanning, harness work, and pottery, or such of these as may be found to be desirable. At Dacca many of these are, or might be dealt with by the School of Engineering, and the distance between the farm and this school is not so enormous as to make co-operation impossible. It would, nevertheless, be worth while to consider the advisability of retaining the higher forms of instruction at the Engineering School, and of removing the lower ones to the Farm.

113. The agents of the Departments of Agriculture and Industry would have quarters at the spot. There might be a District Board workshop in which all the rougher District Board work would be done as far as possible. To these might be added the quarters of the agents of the Sanitary, Co-operative Credit, Education, and Veterinary Departments with the offices, laboratories, etc. of each. A teachers' institution would also be added and the teachers trained in the midst of activities directly related to the life of the people whose children they are to teach. Here too it should be arranged for them to see, as a demonstration, the working of a boarding and day school. The question of the practising of teachers is dealt with in another chapter and need not be discussed here. A printing press (with apprentices) would be a most useful adjunct in the service of the District Board generally, and would be extremely valuable in the multifarious propaganda work of the whole institution, which might be called the Social Welfare Centre for the District.

114. That this is not a wholly fanciful or fantastic idea can be demonstrated. The monasteries and convents of the middle ages were in fact just such centres. A picture and a plan of a twelfth century monastery lies before me. Besides the church, the refectory, the dormitories, the lavatories, the rooms for study, the stables, the granaries, the abbot's quarters and the guest houses for rich and poor, there are found the almonry and the poor school, the cloister, the scriptorium for the writing and illuminating of books, the Chapter house or committee room, the "parlour" or common room, the bakehouse, the mill, the infirmary, the garden, and the fish ponds, while all round was the farm from which the monastery drew its living. Some of the monks were engaged in farming, some in building and some in other various arts and crafts of the day, and in teaching them to others. Principal Parry, of the Carmarthen Training College, says:—"The monasteries also played an important part in the economic development of the country. At times, and in certain localities, the economic condition of the people seems to have sunk

to a low ebb. Bede tells us that "very often forty or fifty men being spent with want, would go together to some precipices or to the seashore and there, hand in hand, perish by the fall or be swallowed up by the waves." From the earliest times industrial activity had been a feature of monastic life. Speaking of St. Basil, his biographer tells us that "by the labour of his monks over wide desert places, hopeless sterility gave place to golden harvests and abundant vintages." Manual labour was a common employment in the English monasteries. The builders of the monasteries also necessarily introduced new arts into the country. Thus Benedict Biscop brought over masons and glaziers from France. Lamps and vessels for the use of the Church were made, and the craft taught to the Northumbrians. The knowledge of the art of fishing by means of nets, which apparently was not known in some parts, was introduced by the monks." It was thus that civilization was preserved, spread and developed in Europe, and it is thus that it is still being developed in parts of Africa and elsewhere by bodies of monks.

115. But this kind of work is not the monopoly of religious fraternities. American work among the "poor whites" and the negroes of the southern States as well as among the Filipinos has been along similar and very successful lines, and missionaries and others are touching the same line of activity in various parts of India. The report of the recent Missionary Commission on "Village Schools in India" is of great interest in this connexion. Even if this does not carry conviction regarding the practicability of the scheme we have here in Bengal at our doors this very thing growing up at Nowgong and the results of the work that has been done there appear to me to be of possibly unrivalled importance in the social development of the Province.

116. For this reason and in order to give a concrete illustration of the sort of thing that has already to a large extent succeeded, though in perhaps exceptionally favourable circumstances, I have re-printed in Appendix I. the following papers :—

- (a) Extracts from an article by Rai Romesh Chandra Dutta Bahadur on "The Nowgong Ganja Cultivators Co-operative Society, Limited" in the District of Rajshahi, taken from the Bengal, Behar & Orissa Co-Operative Journal for September & November 1918.
- (b) The substance of an address by Mr. Donovan I.C.S., Registrar of Co-operative Societies, Bengal, to the members of the same Society, taken from the January 1919 number of the same paper.
- (c) A copy of a note by Mr. Donovan showing the direction the development of the work is taking.
- (d) An extract from the Annual Report of the Managing Committee of the Society, 1920-21.

117. The first of these interesting documents has been included to afford a glimpse of the realities of life among the ignorant peasantry and of their helplessness, so long as they are unaided, in the hands of unscrupulous exploiters. The second shows the clearest ground for hope through intelligent and earnest propaganda work and organisation. The third illustrates the point upon which I am laying such stress, namely, the intimate nature of the connexion between the various parts of this single social problem of the development of the masses. And the last shows how wisely the new found resources of the people are likely to be applied. There is a *guru*-training school at Nowgong at present separated from the rest of the good work that is going on. At the invitation of Mr. Donovan I am hoping shortly to accompany him to Nowgong, so that I can look into the educational side of the question.

118. In the proposed Social Welfare Centres would be taught not merely skill in and knowledge of the vocations followed for profit, but also the uses of leisure, the means of recreation, temperance, vaccination (by school teachers), dispensary work, the care of children and home nursing, insurance, the constitution of Government and its meaning for the people. The real principles of self-government would be learned through the study

of the co-operative purchase of raw materials and machinery, the latter either on the hire-purchase system or otherwise, and the co-operative sale of the completed goods; also by the repayment of stipends and partial support of the institution by the products of the industry and prudence of those connected with it, somewhat on the principles advocated by Captain Petavel, who is now carrying on research in this matter, and by Mr. Barber at Faridpur. Here the right sort of books and leaflets for the schools and for propaganda work would be produced and printed; and hence would start peripatetic weaving and similar schools. Here too would be a lending library connected with all the systematised schools, and sets of magic lantern slides for lectures. In the Social Welfare Centre too would be labour organizations, connected with organised industries in the towns, offering information of a reliable kind to landless or very poor men in the villages, and bringing employers into touch with sources of labour supply.

119. At this stage it is impossible to go into details of finance for this scheme. Before this could be done estimates would have to be contributed by the experts of several departments as well as those of various missionary and co-operative societies and the growth of the whole institution would be very gradual. Many economies would be possible through the working at close quarters of various departments of the work, e.g., the sanitary with the veterinary, industry with agriculture, etc. As far as the educational part of it is concerned there would be savings from funds now spent at normal, *guru*-training and industrial schools. On this side of its activities the Social Welfare Centre would need a Teacher Training Institution with:—

- (a) A Crêche for the children of workers, associated with
- (b) An Orphanage, some of the children of which would attend.
- (c) A Demonstration, Lower Primary School, with the addition on the one hand of the cultural classes of
- (d) A Middle School, and on the other of the
- (e) Semi-Vocational Upper Primary Class or Classes, and
- (f) An Agricultural Elementary School with hostels, as well as,
- (g) An Industrial School with hostels, containing various branches, including one of miscellaneous small industries built up through a careful examination of the local markets to see what goods are in demand with a view to discovering how far it is possible cheaply to substitute local for foreign products. I have seen wooden pen-holders from America and Japan being largely sold at Chandpur, while an article rougher in quality though as good for the purpose is being made a few miles away at Comilla, and but meagrely sold at a much cheaper rate. Buttons of mother-of-pearl and of cocoanut shell, and many other small things that are being developed by the Bengal Home Industries Association would come under this head.

120. A more serious difficulty even than the financing of these Social Welfare Centres would be the finding of the right men to direct and supervise their work. The general problem to be solved could probably be split up into a large number of constituent problems by a conference of representatives of the various departments concerned, together with those of missionary and other agencies that are already at work upon different parts of it. They could then decide upon the kind of man who would be most likely to bring the experiment to a successful issue, where he could be obtained, and how others like him could be produced in the future. It might be necessary in the first place to go out of India for the right man, but on the whole it seems a sounder principle, to send Bengalis away for training rather than to bring outsiders in in ignorance of the language and conditions of the country. It is to be strongly urged (*i*) that a general scheme for the whole province should not be undertaken until the way has been felt by experiment in a very few districts, and (*ii*) that the whole matter should be kept as closely as possible on a true commercial footing with careful accounts and records kept in every branch of the work.

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121. Public opinion would certainly support any attempt to connect vocational instruction in agriculture and industry with primary schools. One indication of this support is to be found in the unanimous resolution of the District Board Conference this year to the effect "that the primary schools be definitely co-ordinated on the one hand with middle and high schools, and on the other with industrial and agricultural schools." The Conference also approved the proposal to utilize the national school system for social welfare in these terms:—"That the proposed school organisation be made to assist in movements for public health, co-operative societies, savings banks, adult education, industry and agriculture as far as possible." If these proposals were adopted, the well-distributed schools of the national system serving the whole population, as proposed in Chapter III above, would become the finger tips of the development departments of Government, the children receiving instruction, the teachers acting at least to some extent as agents and propagandists, the parents being gathered for popular, easy and interesting lectures, and the buildings being used as meeting centres where notices would be posted within easy reach of all. The best children would be drafted on either to neighbouring middle schools or sent as boarders to the Social Welfare Centre of their own District.

CHAPTER VI.

Teachers and Sub-Inspectors.

122. **Pay.**—The remuneration of teachers in primary schools is deplorably low, lower in many cases than that of the utterly illiterate day labourer. My own observations confirm Mr. West's estimate that the teachers are compelled to earn outside the school at least as much as they earn inside it. There are Government primary school teachers who are paid only Rs. 8 per month, and anything they can get from fees, probably not more than Rs. 3. I have come across case after case of assistants in schools whose total emoluments from the school did not amount to more than Rs. 3 and Rs. 4 a month. The table reproduced below from the Quinquennial Review of Education in Bengal for 1912-13 to 1916-17, page 53, will give some idea of the state of things:—

DIVISION.	PUBLIC MANAGEMENT.		PRIVATE MANAGEMENT.	
	Range.	Average.	Range.	Average.
1	2	3	4	5
Burdwan Division. ...	Rs. 9 to 16	14·5	Rs. 5 to 25	7·8
Presidency Division excluding Calcutta ...	8 to 19	10·9	5 to 30	7·8
Calcutta ...	... 18·5	10 to 30	10·5	7·1
Dacca Division ...	4 to 17	10·4	4 to 11	6·7
Chittagong Division ...	5 to 18	8·7	3 to 12	7·9
Rajshahi Division ...	4 to 18	9·1	4 to 12	

* In Calcutta there was one School under public management with two teachers. The total cost of this school was Rs. 444 for 1916-17.

123. It is impossible for any one to feel very proud of these figures. This Report has nothing to do with Calcutta, but I cannot refrain from mentioning that the "London of the East," the "Second City of the Empire," differs in one striking respect from the first city, and that is in the utter lack of anything in the former that can be described as a faint approximation to adequate provision for primary education or of organised vocational instruction. I mention this because municipal commissioners in the country districts have, on several occasions, perhaps justifiably, expressed the view that Calcutta might be expected to set an example in this matter.

124. The question of remuneration is put first in this chapter on teachers because it is of the first importance. A member of the recent District Board Conference said to me in private conversation (I quote his words *verbatim*): "We all agree that the schools should be improved but why raise teachers' pay?" The question was a surprise. The teacher is the school and the school is the teacher. I have found teachers drawing less pay than the menial servants in the same school. I have found members of the staffs of training institutions drawing less pay than the subsistence stipends that were regarded as the minimum on which students in the same school could be expected to survive. As prices rise, the work in school, with its miserable pittance, becomes proportionately of less and less importance to the man in whose charge it is; it becomes the place of a little leisure, if not of repose, in the day's struggle. The children of the country are being committed to the care of men who have not enough to eat, or the wherewithal to clothe the women of their families. And if small increments in the grants are made, the result is often not an improvement in the man's position, for the small contributions in fees or in food on which the teacher has had so largely to depend in the past tend to drop off as being less necessary. As prices rise, the people are not more but less inclined to be generous to the teacher. Of the number of teachers who are trained at Government expense a large proportion very wisely go off to other forms of occupation.

125. It is hardly to be wondered at that, bad as things were before, a definite degeneration seems now to have set in. One of the Divisional Inspectors recently wrote to me: "There are many *gurus* who cannot read or write the matter of Bengali readers correctly. There are again many unacquainted with arithmetic beyond the first two simple rules." In some places the teachers who are staying on in the schools are simply not worth the attempt to educate or train them further, and inspecting officers are wondering if it is possible to get boys from schools direct for training. These may be attracted by the Rs. 11 stipends given by Government during training, but when they discover themselves to have benefited by their new education, and that they cannot earn as teachers even what they were drawing as pupils, they will scarcely remain on in the profession, and it is to be hoped that no form of bond that could be devised would hold them to it. The only real hope of procuring and keeping better men lies in the first instance, not in the training school, but in the prospect of a possible livelihood in the primary schools themselves under a proper system of payment and public control, and not under the present aided school plan. The following is a table of qualifications of primary school teachers in Bengal:—

CLASS OF SCHOOL.	NUMBER OF SCHOOLS.	NUMBER OF TEACHERS EMPLOYED.	TEACHERS PASSING EXAMINATIONS.															Number of Vacancies which occurred during the year.
			F. A.	Entrance or Matriculation.	VERNACULAR MASTERSHIP.		Guru Training School.	Middle English or Standard VI.	Middle Vernacular or Standard VI.	Upper Primary or Standard IV.	Lower Primary or Standard II.	Sanskrit Title Examination.	Madrasa Central Examination.	Other Examinations.	Passing no Examination.			
					Passed Final Examination.	Lower Grade Examination.												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
<i>For Boys—</i>																		
UPPER PRIMARY.																		
Government	...	265	520	1	8	22	12	247	42	68	67	6	—	—	—	37	39	
Aided	...	2,799	6,875	...	78	36	56	1,524	1,314	1,075	1,209	116	8	37	5	282	513	
Unaided	...	74	163	...	3	1	2	22	59	28	35	3	1	—	—	10	10	
Total	...	3,138	6,558	1	89	59	70	1,863	1,425	1,167	1,404	125	4	17	5	229	562	
LOWER PRIMARY.																		
Government	...	3,704	4,540	—	5	4	11	2,145	.512	446	924	266	—	46	18	92	204	
Aided	...	24,803	27,649	—	38	27	45	3,494	4,902	4,226	8,335	2,286	—	918	153	3,035	2,031	
Unaided	...	3,826	3,709	—	8	4	6	245	658	329	1,270	453	—	41	25	493	162	
Total	...	31,133	35,998	—	51	35	62	5,884	6,082	5,211	10,624	3,557	—	634	196	3,621	2,397	
Total for Boys' Schools	...	34,371	42,516	1	140	94	132	7,747	7,507	6,378	12,028	3,682	4	652	201	3,930	2,949	
<i>For Girls—</i>																		
UPPER PRIMARY.																		
Government	...	28	57	—	3	4	6	10	4	15	2	1	—	5	9	2		
Aided	...	186	491	—	16	23	31	78	56	90	85	32	—	12	66	7		
Unaided	...	6	16	—	1	2	—	1	1	4	—	1	—	—	6	—		
Total	...	220	564	—	20	29	37	89	61	107	87	34	2	—	17	81	9	
LOWER PRIMARY.																		
Government	...	68	85	—	5	2	3	3	15	16	13	16	4	—	4	8	1	
Aided	...	8,448	7,611	—	23	46	40	823	1,200	1,204	2,236	989	4	88	80	890	244	
Unaided	...	1,900	1,631	—	6	4	4	170	248	354	809	224	—	12	24	167	28	
Total	...	10,416	9,327	—	30	52	52	1,010	1,464	1,471	2,761	1,217	4	82	118	1,065	283	
Total for Girls' Schools	...	10,626	9,591	—	50	81	89	1,090	1,525	1,878	2,848	1,231	7	82	135	1,146	292	

126. **Training.**—There are at present five Government normal or first grade training schools in Bengal, one in each Division. These train teachers for the middle schools and the middle and lower classes of high schools. They have a long and honourable career behind them, but five times as many teachers are required from them as they are at present turning out, and in the proposals put forward for attaching the training of teachers for each district to the District Social Welfare Centres, it is suggested that primary and middle teachers should be trained together (see paragraphs 113 and 119 above), so that if that proposal were adopted the normal schools would cease to have a separate identity. This is the less to be regretted, as the present

accommodation of these institutions leaves much to be desired and their removal from their present sites would, I think I am right in saying, in each case be welcomed by other institutions which need their premises. It is not with middle schools that this report is mainly concerned, so that this question need not be dwelt on further here except to remark that five head masters of normal schools, who are already in the Provincial Educational Service, will be reckoned as in charge of five of the new institutions, one of which will be needed for each district.

127. Teachers in primary schools are trained in *guru-training* schools. Their history has been lucidly set out in the Director of Public Instruction's letter No. 294, dated the 16th April 1915, to the Government of Bengal. This will be found in Appendix J to this report. Specimens of various schemes for these schools exist in different localities, but the only ones that have any possible prospect of doing good work are those designed by the Hon'ble Mr. Sharp, and which are gradually being built. It is to be noted that the developments of the policy with regard to training schools have all been away from the small inefficient institution and towards larger institutions serving a wider area with a better paid staff. The proposals now being put forward are but a final step in the same direction. Owing to the financial stringency caused by the war the existing reformed scheme has not made as much progress as it would otherwise have done. The present policy is eventually to put one of these new schools in each subdivision. There are 79 subdivisions in Bengal, so that this may be taken as the number of *guru-training* schools that constitute a complete scheme if we set aside the temporary using of the existing buildings remaining from former attempts to solve the problem. Of the newest ones 22 have been built. Of the oldest type of *guru-training* school no more need be said. The Director has stated (paragraph 11 of the letter quoted above) that the buildings can be utilized for schools. This is also true of a good many of the somewhat improved later buildings or those of them that are still good enough to be worth considering. It would, however, be a serious matter to adopt a new policy which would result in the abandonment of the latest type, the buildings of which, though of a curious plan, are well built and have cost large sums of money. Each one would have to be considered separately. Some would serve excellently for large primary schools in the proposed new system. Others would meet the need for middle schools and would serve the purpose well. Some might be utilised as much-needed girls' schools, and some might continue to train teachers. There is not much danger of over-providing the Province in this respect.

128. The work of training teachers falls into three parts. First, and in the case of the primary school teachers, most important of all, is the improvement of their own education, including training in regularity, punctuality, physical exercises and games, etc. The standard is deplorably low and the range of their attainments very narrow. The second is their training in professional technique. They must learn to organise a school, to draw up a time-table, to lay down courses of lessons, to classify children, to use a blackboard easily and well, to utilize maps, reading sheets and other items of school apparatus and to understand the different current methods of teaching various subjects, they must comprehend the various registers, and other books that have to be kept. Lastly, they must practise their art under effective criticism and suggestion. The first of these three parts can be taught anywhere. The second to be fully effective needs the presence of a good school for purposes of demonstration, but not necessarily practice. The third constitutes the greatest difficulty.

129. Until recently it has been customary to attach to each *guru-training* school a "practising school." It is not expected even in theory that this school will contain more than about fifty boys. In practice it very seldom approaches that number and in many, even of the most advanced type of institution the school presents the appearance of five or six boys being solemnly practised upon by one or two students in training, sometimes with a pandit supervising. It stands to reason that a small school practised on by 40 *gurus* will cease to exist. It is of no use to protest that there *must* be a practising school; experience has proved that even if such a school can be got together it will soon be killed.

130. A better plan is to have a demonstration school and to give a guarantee to the parents that the boys will not be practised upon, but on the contrary will have the advantage of being taught by a picked staff, including a teacher of English. The students can then be sent to practise in neighbouring schools at distances up to two miles. That is the theory. In practice it is most difficult to organise successfully. The teachers going out to teach miss their other current and more important general subjects, and are wearied out with long hot walks in the sun. The teachers and parents of the other schools generally resent their presence, and only submit because they fear to lose the grants which form a small part of their wretched subsistence. With so large a number of students the lessons cannot be made continuous in series, and the giving of isolated individual lessons is almost worthless to the student, and most damaging to the classes practised upon both in the lessons themselves and in the discipline. A few teachers in *guru*-training schools seem to think the so-called practising does some good, but the majority admit that it is time and energy wasted.

131. What is being advocated here, then, is that the first two parts of the teachers' course should be taken in a central district Elementary Teachers' Institution, where they should have the advantage of a good demonstration school, if possible, and where, in the Social Welfare Centre, they would be in the midst of the activities of the development departments which they would have to study. A good deal can be done with younger teachers in training by setting them to teach each other. In this way the art of questioning, etc., can be taught, as well as the best way to control classes, use a blackboard, place the furniture, etc. After finishing a course of this kind the teacher would go into a school and during the following year he would be specially inspected by members of the staff of the Teachers' Institution, as well as the ordinary sub-inspector. If he was considered good enough he would be awarded his full certificate at the end of this probationary year. If not, he would have to go on for another year after receiving a clear statement of the reasons for his failure. My impression is that such a method of training would be far more satisfactory than that at present in vogue.

132. In building up a co-ordinated system of education in each district very careful attention would be paid to the number of teachers required each year, and this would fix the size of each of the proposed Teachers' Institutions. In 1917 the following was the estimate:—

Serial No.	NAME OF DIVISION.	MIDDLE SCHOOL.		PRIMARY SCHOOLS.	
		Annual estimat-ed requirements as to number of teachers.	Annual output of trained teachers.	Annual estimat-ed requirements as to the number of teachers.	Annual output of trained teachers.
1	Presidency ...	183	24	450	142
2	Burdwan ...	189	28	834	190
3	Dacca ...	225	28	600	218
4	Chittagong ...	104	16	462	125
5	Rajshani ...	221	70	742	232
TOTAL ...		922 (a)	166 (b)	3,088 (a)	907 (b)

(a) These figures show the number of teachers needed to be trained annually for Middle and Primary Schools to keep up with the demand.

(b) These figures show the number of teachers trained annually under the existing arrangements.

133. The total number of *guru*-training schools in 1918-19 was 117, containing 1,956 students, of which 954 became qualified in that year. If complete provision for Bengal were made on the lines of the scheme at present sanctioned by having a Government *guru*-training school of the newest type at each of 79 subdvisional headquarters (79×40) 3,160 would be in training. This will probably not be enough for the complete new system of public schools now advocated. Until we have a more exact idea for each district separately, it is proposed to work upon a basis of an average of 150 *gurus*.

at each of the 25 Elementary Teachers' Institutions, or a total of 3,750, which is nearly 600 more than on the other plan. Rough estimates for this will be found in paragraph 199 in Chapter IX of this report.

134. Since the Director's letter quoted above was written, building prices have practically doubled, so that the future capital cost of the scheme may be reckoned somewhat as follows:—

	Rs.
79 <i>guru</i> -training schools at Rs. 50,000	... 39,50,000
<i>Minus</i> 22 already built ($22 \times 50,000$)	... 11,00,000
Total	28,50,000

From this should be deducted any savings on the present buildings that can be used for other purposes.

135. The recurring cost of the existing scheme, if applied to all 79 subdivisions, would eventually be $(79 \times \text{Rs. } 200 \times 12) = \text{Rs. } 1,89,600$. The *gurus* are now in receipt of stipends amounting to Rs. 11 per month. The cost of the full scheme under this head would, therefore, be $(79 \times 40 \times \text{Rs. } 11 \times 12) = \text{Rs. } 4,17,120$ per annum. This gives a grand total of recurring cost at $(\text{Rs. } 1,89,600 \text{ plus } \text{Rs. } 4,17,120) = \text{Rs. } 6,06,720$. In 1918-19 the maintenance charges of the existing schools cost Government Rs. 2,10,873.

136. At present three teachers are estimated for 40 students, or rather more than 13 to a teacher. In Europe eight is regarded as sufficient. In the scheme now put forward, it is proposed to place a Provincial Service man in charge and to allow a teacher for each 15 pupils in view of the suggestion not to send students into practising schools. (It must, however, be borne in mind that the staff will have to join in the inspection of students who are in their probationary year). This gives a staff of ten in each Teachers' Institution. Estimates for the present and the proposed schemes are compared in Chapter IX on Finance.

137. Teachers employed in the proposed new school system should be expected to hold licenses or certificates. Those judged to be sufficiently qualified should at once be awarded certificates. Those not well enough qualified to receive certificates, but who are of middle age and efficient through experience should be given permanent licenses and allowed to finish their teaching careers in peace. Those who are not well-qualified and who are still young should be given temporary licenses renewable from year to year and informed that their permanent employment in the public system will depend upon their qualifying for certificates by training, or at least for permanent licenses by a departmental test. They might be prepared for the latter by short courses of possibly only six or eight weeks which would spread widely the idea of training.

138. **Sub-Inspectors.**—Sub-Inspectors should be trained in these training institutions and given a short course afterwards in their special work. There should be a free interchange between District Inspectors and heads of Teachers' Institutions and between Sub-Inspectors and Subordinate Educational Service men on the staffs of Teachers' Institutions, and between heads of primary schools and the lower teachers of the training schools, so that the training should be kept close to actual conditions of school work. Such occasional interchanges would also go far towards lessening the boredom of continual employment in elementary work.

CHAPTER VII.

Elementary Schools.—

139. **Statistics.**—The term "elementary school" has been defined for the purposes of this report as including lower primary, upper primary and middle schools, both vocational and cultural. The middle schools are at present divided into "English" and "Vernacular." The total number of these schools is as follows, viz., managed by Government, 10; managed by local bodies, 90; aided by public funds, 1,193; and unaided 673, or a total of 1,966. These middle schools are at present recognised as "secondary" and this report is not immediately concerned with them. Under the head of "primary schools" are comprised indigenous schools called *pathsalas* and *maktabas*, with more modern schools usually called simply primary schools. The number of these in 1918-19 was upper primary 3,358, containing 161,120, children, and lower primary, 41,549, containing 1,221,127 children. There were also 179,647 children in the primary departments of high schools, making a grand total of 1,561,894 children, the smallest total for many years. There was a decrease of 48,929 boys at the primary stage in that year. This was attributed to the "rise in the cost of living, failure of crops, and the ravages of epidemic diseases." Of the primary schools Government manages 191, and local bodies 2,874, while 36,236 are aided, and 5,606 unaided, or a total of 44,907 altogether.

140. **Sites.**—It is very rare to find a primary school in possession of the ground upon which it stands. Even some municipal schools have been placed upon ground over which the municipality has no real right. The people seem to be satisfied with such an arrangement, but if we embark upon a policy of systematised national schools it will be important to secure some definite legal understanding as to the ownership of the sites. In municipalities, where the ground is very expensive and difficult to obtain, it will generally have to be paid for either by private arrangement or through acquisition by Government. In country districts it is usually easily possible to obtain suitable sites without any expenditure. The best arrangement is for the sites to be given to a public authority, with a condition attached that if the land ever ceases to be used for a school it shall revert to the owner or his heirs. The size of the site will also vary according to its locality. It is desirable to have as large sites as possible, so that the children may have some playground and possibly some space for school gardening in future. It is, however, to be remembered that the children in these schools are quite young and do not need to play football or hockey. For their childish games quite a small piece of ground is enough. For towns I have advocated 8 cottahs as the absolute minimum which could be considered possible. Where ground is expensive it is better to erect two-storeyed buildings, the ground floor being *pucca* and the upper *kutcha-pucca*, so as to leave the greatest possible playground space. In parts of some towns it is difficult to get suitable sites at all. My own observation confirms the following description given by Mr. West of a school in Howrah. "The whole quarter is appallingly dirty. The stench on the verandah of the school is unbearable and the flies swarm. Furniture is—blackboard one, stool one, books two. It would be of no use to provide a building here. The kindness would be to get the children out of this quarter even for an hour or two a day. It is absurd to give aid to anything so utterly filthy as this." In other municipalities, especially those near Calcutta, I have seen similar sites, but generally speaking, bad as they are, things are not as bad as that, even in these municipalities. To make children attend schools on such sites is cruelty, to propose to teach hygiene in them is hypocrisy.

141. **Buildings.**—Buildings will vary according to their locality. In large towns it seems to be necessary, to build with brick owing to danger from fire and the necessity of using two-storeyed buildings so as to save land. Outside the large towns the type of building that has been generally approved is one with a *pucca* floor, which reduces the amount of dust in the school, and

obviates the necessity for the purchase of furniture in the lower classes, mats being used instead. Wooden posts support a roof of tiles, where there are no monkeys, and of thatch or iron where there are. The walls are made of bamboo matting, and the doors and windows of wood. The iron roof is very hot, and under it a ceiling of some kind has to be placed; it keeps out the rain and is not liable to frequent repair. The thatched roof is cool and generally rain-proof, but needs a good deal of attention. In fact *kutcha* buildings of this kind cost a good deal in repairs. They are suited for their purpose in all other ways, and it is important, that, too great a departure should not suddenly be made from the type of building in which the children ordinarily live. The use of *pucca* buildings is said to make the children less able to resist the sun when they go back to work in the fields. The aim should be to show them a neat, tidy, clean and, if possible, beautiful building as an example of what their own houses should be, and not one altogether beyond their powers of imitation. At present most of the schools are held in verandahs, sheds, religious houses of some kind, or in other buildings which are for one reason or another, more or less unsuited for the purpose. In working out schemes for building in municipalities the local conditions have been taken into account in every case and the repairs have been allowed for amongst the recurring charges. All inspecting officers and local bodies should be in possession of well thought-out type-plans to meet different conditions. Mr. Barber of the Australian Baptist Mission at Faridpur is very kindly preparing plans and estimates for the construction of a school unit of building 20 feet by 15 feet, containing 300 square feet, which, according to the departmental minimum, provides for 50 children and would yet be suitable as a class room for 30 children under more ideal conditions. It is thought possible that such units might be prepared by district boards and sent out in numbered sections for erection on whatever kind of foundation was found to be best. Mr. Barber is comparing the cost of these in wood and in iron frames, the latter being a precaution against white-ants. The possibility of renting buildings, instead of owning them has been examined and put aside as uneconomical and otherwise impracticable and undesirable. The whole question of the provision and repair of school buildings in non-municipal areas is one of extreme difficulty. Even if Government were to provide the capital cost, public opinion cannot be counted upon with certainty even for the smallest repairs. The question is taken up in the chapter dealing with finance. It is desirable that partitions in school-buildings should be easily removable, so that in the absence of one teacher two rooms could be combined.

142. Equipment.—The provision of equipment, important though it is, is perhaps the least urgent of the demands upon the public purse. Provision can be made at a cost of Rs. 2 to Rs. 5 per child. It should include mats for all the lower classes, and desks and benches of suitable size for a few privileged children at the top. A table, a chair, a blackboard and an easel are necessary for each teacher on the staff. It is not uncommon to find either a clock and no time-table, or a time-table and no clock in a school. A clock and a gong are necessary for training in punctuality, while it is desirable to have a few maps, some books, blackboard chalk, dusters and, in the case of night schools, lamps. The use of benches without desks in front of them is awkward and bad for the children, especially as the children's feet never touch the ground. Its recommendation is apparently that it is "respectable."

143. Sanitation.—It is extremely difficult to obtain enough funds for the building of the school itself without thinking of outbuildings. The majority of primary schools are innocent of any sanitary arrangements of their own. In country districts the suggestion that latrines are desirable is a source of amusement to the people. Is not all Bengal around the school? In many districts no "sweepers" are to be found and, if they were, the school has no funds to pay them. Special patent latrines are regarded as curiosities and duly avoided. If it had not been for the statistics of the Sanitary Commissioner on the subject of hookworm, we might have been content in rural areas to leave the sun to do its work. I have no suggestions to make regarding the small scattered schools that now exist. It should be

quite possible to take the matter up if we succeed in developing a properly-organised system of national schools.

144. **Causes of Inefficiency.**—Enough has been said in the chapter on "Teachers and Sub-Inspectors" to show that the schools are, generally speaking, inefficient. One of the chief reasons for this inefficiency is that the whole matter of primary education is not taken very seriously. The heat of summer and the access of water in the rains interfere with punctual attendance; while malaria, hookworm and other diseases induce slackness and prevent regular attendance, as also do the need of the children's help in field or mill, and the disagreeableness of paying fees. The teachers are sometimes incompetents dropped from other spheres of work—"those who can, do; and those who can't, teach;" those who are competent are often tired or lazy, and this is not to be wondered at in the conditions of their lives and the buildings in which they have to work; there is little idea of punctuality in starting school or in following a time-table, and often the noise and disorder are such that any kind of progress would seem to be impossible. Mr. West has shown that after a careful examination of 1,306 children in 38 schools, the teacher having been explicitly warned three times on the point, one-half of the children remained unemployed, and that of those who were employed two-thirds were writing. There are too many classes under one teacher, and they are sometimes found in different rooms. The scholarship system, as at present arranged, encourages the teachers to devote themselves to one or two favourite pupils, leaving the rest to take their chance. One important reason for the congestion in the lowest classes has been stated by the Mission Commission to be the difficulty of some of the vernacular scripts. There can be no doubt that the early stages of learning to read take up a wholly disproportionate amount of the short time at the child's disposal during his school life, and the noisy reiteration of meaningless vocables hypnotises the children into a respectable stupidity. Learning through the heard impression is often a serious hindrance to true education. The children must be taught not merely to read but to read something. The difficulty connected with the script is probably not insuperable, but I am not prepared at this stage to offer any suggestion on the point. The schools are largely proprietary and the grants to them are too small either to make them efficient or to serve as a real means of control. A very careful examination of a very large number of primary schools has led me to the deliberate opinion that we cannot hope to improve these schools very much in present circumstances and that our hope must lie in the direction of a new system properly organised for public purposes. To do this it will be necessary to educate public opinion, so that the people may be persuaded to send their children a little distance to larger and more efficient schools rather than to have many small inefficient schools almost at their doors. Experience has proved that this is not at all a hopeless proposition.

145. If facilities are given, wherever possible, for the teaching of English even with an extra fee; if half-time schools are permitted at busy seasons of the year; if discretion is given to the local authority to arrange for holidays according to the needs of the particular season; if a primary school examination is reinstated; and if instruction is made free, some of the difficulties of securing good attendance will have been removed. Attempts should be made by interesting methods to preserve literacy among the literate and to secure the education of parents, so that their literate children shall not hold them in contempt. The names of parents whose children are not at school might be posted at the schools for all to see.

146. **Compulsion.**—There can be little doubt but that the proposals already made, if carried out, would tend to expand substantially the numbers in primary schools, for "improvement is a potent factor in expansion." Nevertheless it is not to be hoped that all the children of the country will attend school until compulsion has been effectively introduced. The clauses of the Bengal Primary Education Act of 1919 which refer to compulsion are examined in the next Chapter. It is desired before closing this Chapter to outline a method of introducing it in municipal and non-municipal areas.

147. It is idle to hope that it will be possible to compel boys to attend existing *pathsalas* and *maktabas*. There is no machinery for the purpose, and no one in the Province has been able to suggest any effective method. If, on the other hand, the population is divided up among circles of half a mile radius with a publicly-owned and managed primary school at the centre of each under the control of a fairly paid master, something can be done. All these schools would have at least two teachers, preferably a Hindu and a Muhammadan. These should be appointed "attendance officers" and possibly given a small allowance in consideration of their extra work. It would be the duty of an attendance officer to keep a list of the householders of his own faith who live within the school area with the number of boys 6 to 10 years of age. If such a boy did not come to school, the parent would be notified by the attendance officer. If this had no effect, the matter would be reported to authority, the local Government body or the magistrate in all probability. The authority would call upon the parent privately to perform his duty. If he still refused, he would be called into court and fined according to the law. The parent would thus have two private chances of complying with the law before extreme action could be taken. These arrangements could, of course, only be made in properly organised areas, and the proposal may contain the germ of a future system of birth registration, records being kept by the school master and metal identification discs being handed over to the parents.

CHAPTER VIII.

Administration, Control, and the Act.

148. **Inspection.**—In moving about the country one hears a good many complaints that there is too much inspection, or that too large a proportion of available funds is devoted to inspection. — The total expenditure on primary schools from public funds in 1919-20 was Rs. 34,16,752, of which Rs. 24,91,959 were spent directly in the schools and Rs. 5,55,692 on administration, the difference being for capital expenditure. The amount spent on administration constitutes a fairly large proportion it is true, and a good deal of the work done by the inspecting officers is not of very great value, hard though they have to work, for constructive supervision is almost out of the question. The recent Missionary Commission considered that there should be a " supervisor " for every 12—30 schools. The average number of primary schools (excluding indigenous schools), per sub-inspector is 172, and he is supposed to visit each once and, if possible, twice in the year. He has also bills to make out, and a good many other duties to perform. He has to move from place to place and to take bedding and in many cases food also with him. No peon is allowed him, and he often has to carry his things himself unless he is to be out of pocket on his travelling allowance. He sometimes cannot obtain accommodation within his area, and has to travel some distance before reaching it. If each sub-inspector were given a peon on Rs. 12 a month, it would cost Rs. 42,624 per annum, and a house allowance of Rs. 10, given on condition of living within his sphere of work, would cost Rs. 35,520 per annum in excess of present expenditure. Some special Muhammadan sub-inspectors have to travel over whole districts and find serious difficulty in making their travelling allowances meet their expenses. Sub-inspectors, like other mortals, sometimes are found guilty of fraud, such as falsifying travelling allowance bills, diaries, etc., but they are, on the whole, a hard-working and conscientious set of officers. The trouble is that the system is against them and they have not been specially trained for their work. The very large number of tiny schools, all of similar type; and, with few exceptions, all apparently unimprovable, constitutes a heavy burden for one man. They have to be visited hastily and the inspections are not of much value beyond that of compelling the teachers to pull their schools together now and again. Good work has been done by these officers in deciding which schools should receive grants from public funds, but it is an invincible task, and the general distribution of schools is not happy.

149. If a redistribution of schools were made on the lines proposed in Chapter III above, and if they were put under public control, the teachers being paid fixed salaries, the character of the sub-inspectors' work would change a good deal. The bill work would disappear, the teachers being paid from the local governing body. Far more deliberate and useful work in the schools could be demanded in the way of examining the children, directing the teachers and looking into the question of attendance. They would also have to organise the lower and upper primary school annual examinations and report the results, afterwards sending the certificates to the schools. The sub-inspector would be generally responsible for the work of education in its lower branches and would get credit for initiative in improving conditions. He should be informed of all educational matters dealt with by the union board and should be the channel for orders in educational matters between the district board and the union board. Sub-inspectors should be the expert advisers of, and should work in close co-operation with, union boards. The new organisation, if it should be decided upon, would have to be carried out in great measure by the sub-inspectors, who could be temporarily released from all inspection work for the duty.

150. Assistant sub-inspectors should be changed into sub-inspectors as soon as financial conditions permit, and inspecting pandits should disappear

as soon as the schools are in the hands of rather better qualified and better paid teachers.

151. Sub-inspectors are responsible to Deputy Inspectors and District Deputy Inspectors. As the reorganisation proceeds it will appear how far the Deputy Inspectors are necessary and whether they should be at district headquarters or, in the alternative, whether they should have groups of sub-inspectors under them at other headquarters connected with local boards. My present view is that the District Deputy Inspector should become a "District Inspector" in the Provincial Educational Service, a dignity now attained by the head masters of the zilla schools; that he should have charge of all middle and primary education and nothing else; and that he should be assisted by one or more "Deputy District Inspectors" at the headquarters of the district. These officers would be the expert advisers of, and would work in the closest co-operation with the district boards and municipalities.

152. **School Committees.**—Public control over the new schools should be exercised as directly as possible, but it does not appear desirable to have a committee for each individual school either in municipalities or in union board areas. I am informed that the existing committees of board lower primary schools are without practical value. Such committees would in many cases be illiterate, or practically so, if really representative of the locality, and if they were nominated from outside the reason for their existence would disappear. It seems best, therefore, to have a small executive educational committee composed of a number of members of the municipality or union board, together with an equal number of elected representatives of the teachers in the area controlled, with the Chairman or President of the local body presiding. It is important that teachers in the new national schools should, from the outset, be given a position of good social standing and independence which will attract men who will be influential in the work of social development (see also paragraph 165). These proposals, taken in connexion with those made for vocational education (including the training of teachers) in Chapter V above, complete the district organisation proposed, the idea being that it should be a definite unit in itself.

153. **Government and the Schools.**—It is now necessary to consider the extremely important question of the linking of the educational district with Government. At present the District Deputy Inspector is responsible to the Divisional Inspector and so to the Director of Public Instruction. The machinery that is controlled by these officers is already overstrained and additional work must be thrown upon it in the immediate future. The department of Public Instruction has to deal with an enormous and complicated mass of routine business connected with primary, middle and high schools as well numerous colleges. Added to this is the control of European schools for boys and girls and a considerable number of vocational institutions. New undertakings are:—

- (a) the fundamental reform of the largest University in the world;
- (b) the supervision and finance of the founding of a new University at Dacca;
- (c) the creation of a new set of institutions to be called intermediate colleges;
- (d) the reform of a vast number of high schools;
- (e) the reorganisation of 45,000 primary schools, containing about $1\frac{1}{2}$ million children, as well nearly 2,000 middle schools containing 1,65,000 children;
- (f) the provision of extended facilities for vocational education at all stages.

The development of the lower stages is complicated by its close connection with what amounts to a new system of Local Self-Government. It, therefore, appears that some new machinery will have to be devised to meet the situation.

154. The Universities are provided with their own governing bodies. It has been proposed by the University Commission that a Board of Secondary and Intermediate Education should control these branches of the work. Both these stages of education will be linked to Government through the Director of Public Instruction who has become a Deputy Secretary to Government. The new connexion of elementary education remains to be arranged. It appears to be desirable to create a new post for an officer who might be called the Director of Elementary Education. The present Divisional Inspectors of Schools with their Second Inspectors will have their hands full in the reorganisation of the high schools and the creation of the intermediate colleges. In order to make the administration as simple and direct as possible, it is suggested that the proposed Director of Elementary Education should supervise the elementary schools without reference to the Divisional Inspectors through District Inspectors who would only be concerned with primary and middle schools which they would control through the existing Sub-Inspectors. The principle of appointing District Inspectors has already been recognised by Government.

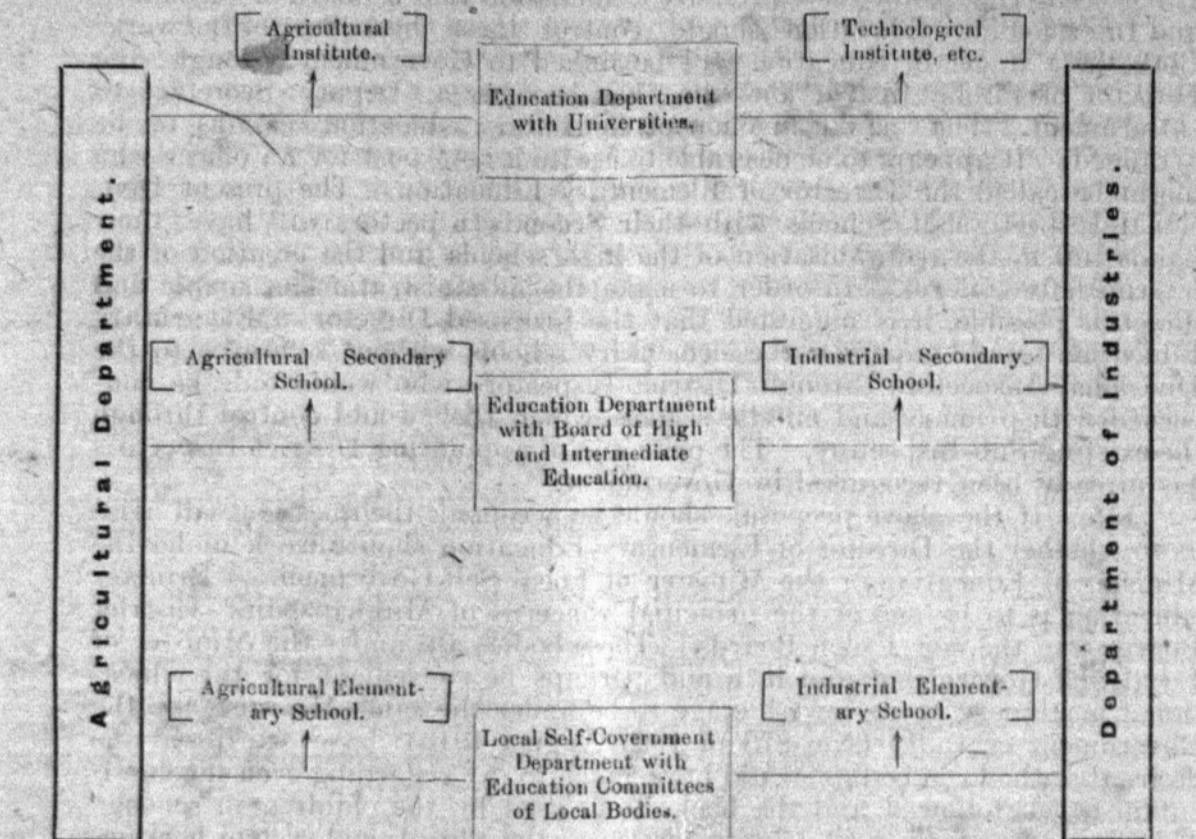
155. If the above proposals should be accepted, the question will arise as to whether the Director of Elementary Education should work under the Minister of Education or the Minister of Local Self-Government. Primary education is to be one of the principal concerns of Municipalities, District Boards and the new Union Boards. These bodies are under the Minister of Local Self-Government and it would perhaps be convenient for the educational machinery at its lowest stage to be under the same Minister, for the Government of India (No. 873 of 19th August 1916) have expressed the desire that the local bodies should have much to say regarding even the curriculum to be followed and the books to be used by the children in schools. This would involve a very definite cutting of the educational system horizontally between the middle and high stages. There is, perhaps, no precedent for this but the organisation for local government and educational administration in Bengal is widely different from that in England and in other countries. In France there is a separate Director of Elementary Education but a detailed comparison with that country will not hold in spite of many similarities. It is for the consideration of Government as to whether the proposed new Director, if appointed, should work under the Minister of Local Self-Government or the Minister of Education.

156. Whichever plan is adopted it will be necessary to make very careful arrangements for co-ordinating the middle with the high schools. This could be done in three ways:—

- (a) The Board of Secondary and Intermediate College education would conduct the middle school examination.
- (b) The Director of Elementary Education would be a member of that Board.
- (c) Divisional inspectors would retain the right of making any recommendations regarding the elementary schools generally or in particular cases.

157. At the three main stages—University, intermediate and secondary, and elementary—the closest touch would have to be maintained between the educational system and the Departments of Agriculture and Industries which, with Co-operative Societies, are together under one of the new Ministers. In addition to forming one of the links between the elementary and secondary stages of instruction, the proposed Director of Elementary Education would, at his own stage, become a liaison officer between the various departments concerned. Dr. Meek, the Director of Industries, has expressed the view that at this low stage it would be necessary for industrial schools to remain under the control of the educational authority, though at the higher stages vocational instruction and training should be under the Department directly concerned. Even at this low stage the Directors of Agriculture and Industries would need to have such very full powers of inspection and suggestion that they would amount to authority in all technical matters.

158. Diagram III, on page 54 will perhaps assist in making clear the general scheme of co-ordination here suggested and may be compared with Diagram I on page 21.

DIAGRAM III.

159. It is possible that these latter proposals may be regarded as outside the orders under which this report is prepared, it is therefore necessary to justify their inclusion here. One of the principal causes of lack of expansion and improvement in the primary schools appears to have been the fact that circumstances have made it impossible for them to have received the concentrated or direct attention of anyone in high authority. This counts for much in any country, but it is especially important in India. The number of primary schools is so enormous that a Divisional Inspector cannot hope to inspect them all, and has to leave them to subordinates, the reports on individual schools each by itself seeming to be of but small importance. Primary education has, therefore, come to be more a matter of statistics than of children. District board and municipal authorities feel that their control is not much more than nominal, for they have to be guided regarding grants and other matters by departmental officers, who are not responsible to them. Their responsibilities need to be made definite and brought home to them in connexion with primary schools. What is aimed at in the change now proposed is that the clear purpose and intention of Government in regard to primary education should reach from the Minister to the child in school by the most simple and direct method of control that can be devised, the local authorities being consulted and assisted in every possible way.

160. The divisional inspectors of recent years have always been overburdened. Each has an average of 162 high schools, 381 middle schools, 268 upper and 6,288 lower primary schools, in addition to second grade colleges, and they are always having to carry out special inspections for the University. What the high schools need is very careful and sympathetic inspection, a leisurely estimate of the values and difficulties of the work done, clear and personal advice to teachers separately and as a body, and explicit written directions of a reasoned character to the head master together with a return visit at a short interval to see how far the weaknesses have been set right. Nothing of this kind can be carried out in the conditions in which the Divisional Inspector now finds himself, burdened as he is with masses of office work. The organisation and development of the proposed intermediate colleges, and the separation of the 1st and 2nd year classes from the existing colleges will create an enormous additional sphere of activity of a very complex character.

This also must be laid upon him as the agent of the Board of Secondary and Intermediate College Education. By removing the massive responsibilities of the Divisional Inspector in regard to the elementary schools greater efficiency will be secured both in the higher and in the lower grades of schools.

161. **The Bengal Primary Education Act of 1919.**—(a) It seems desirable to offer a few points for consideration in connexion with this Act which is reprinted for ready reference in Appendix A. The Act refers in the first instance to municipalities, but under the provisions of section 1 (2) it may be extended with any necessary modifications to areas controlled by union committees constituted under the Bengal Local Self-Government Act of 1885. The recent Conference of representatives of the non-official members of district boards resolved "that the new Union Boards, wherever they may be constituted, be regarded as the principal agents for dealing with primary education in non-municipal areas."

162. The Bengal Village Self-Government Act of 1919 (section 32) says: "The union board may . . . establish primary schools. . . or assume charge of existing primary schools. . . and shall repair, maintain and manage any primary school. . . under its charge." Section 101 empowers the local government to make rules for these purposes.

163. The Bengal Local Self-Government Act of 1885 (section 62), lays down that, subject to any rules made by the Governor in Council under the Act *and to the provisions of the Bengal Village Self-Government Act of 1919* (the italics were inserted in 1919 for those areas where this Act is in force), every district board shall be charged with, and be responsible for, the maintenance and management of all primary and middle schools under public management within the district, the construction and repair of all buildings connected therewith, the appointment (subject to the provisions of section 33) of all masters and assistant masters thereof, and the payment of the salaries of such masters and assistant masters." Section 63 makes it possible for the District Board, subject to rules made by the Governor in Council under the Act "with its own consent, to be charged with, and made responsible for, the maintenance and management of any other schools or class of schools within the district; or to make grants in aid of any such schools, whether the same be under public or private management." Section 64A makes it lawful, subject to rules made by the Governor in Council under the Act, for the district board to "(a) provide buildings to be used as students' hostels in connection with schools for the maintenance and management of which the board is responsible under section 62 or section 63, and maintain and manage such hostels, or (b) make grants in aid of any school referred to in section 63 or section 64, or any other school, college or educational institution, for the purpose of providing buildings to be used as students' hostels in connection with such school, college or institution, or for the purpose of maintaining and managing such hostels, or (c) establish scholarships for the furtherance of technical or any other special form of education: Provided that, save with the sanction of the local Government, no such scholarship shall be tenable at any school or institution not situated within the area under the authority of the District Board." Section 65 makes it lawful for the Governor in Council "from time to transfer to a district board such funds as he may deem necessary for expenditure on (a) the improvement of any schools or class of schools within the district under private management, or (b) the maintenance or improvement of any schools or class of schools maintained and managed by the district board; or (c) the provision of buildings to be used as students' hostels . . . and the maintenance and management of such hostels." The rules that may be made by the Governor in Council under this Act [section 138 (j) (j 1) (j 2) (j 3) (j 4)] are for—

"(j) regulating the maintenance and management of schools under sections 62, 63 and 64, the construction and repair of buildings connected therewith, and the appointment of masters and assistant masters, and the proper distribution of funds transferred to district boards under section 65;

"(j 1) prescribing the conditions subject to which grants-in-aid may be made under section 63 or section 64 A;

- "(j 2) regulating the provision, maintenance and managing of students' hostels under section 64 A;
- "(j 3) prescribing the powers and duties of Education Committees, and regulating the removal of members from office;
- "(j 4) regulating the grant of scholarships established under section 64 A."

164. It appears to be necessary to amend the Bengal Primary Education Act of 1919 in such a way as to add union board areas to those controlled by union committees and to draw up a set of consolidated rules under the three Acts, so far as these refer to primary, middle, and elementary vocational schools (*vide* Bengal Primary Education Act of 1919, section 18).

165. (b) The Bengal Local Self-Government Act of 1885, section 65 B, lays down that "(1) Every district board shall appoint, to be members of an Education Committee—

- (a) the Deputy Inspector of Schools;
- (b) three members of the district board; and
- (c) not more than three residents of the district not being members of the district board.

(2) The appointment of any persons referred to in clause (c) of sub-section (1) to be a member of an Education Committee shall be subject to the approval of the Commissioner; and, when the appointment has been so approved, such person shall, for the purposes of sub-clause (b) of clause sixthly of section 53 be deemed to be a member of the district board. (3) It shall be the duty of an Education Committee, subject to the control of the district board and to any rules made by the Governor in Council under section 138—(i) to superintend all matters connected with the finances, accounts, maintenance and management of all schools maintained by the district board, and (ii) to determine the conditions to be complied with when grants are made by the district board in aid of other schools." This may be compared with Sections 7 to 16 of the Bengal Primary Education Act of 1919, (*vide* Appendix A), and it may be considered whether municipalities and union boards should not always have Education Committees as well as district boards, and that a strong representation of the teachers should appear on each such committee.

166. (c) The period of compulsion under the Bengal Primary Education Act of 1919 is for "boys not being less than six or more than ten years of age," that is a boy is for four years of his life under compulsion, *i.e.*, from the moment when he completes his sixth year of life till the moment when he begins his eleventh, during the time when in ordinary English parlance he says "I am 6, 7, 8, 9 years of age." This period unfortunately does not correspond exactly with any period dealt with by the census, nor does it contain any of the favourite multiples of five which are generally guessed by people in giving the ages of their children. This difficulty might be overcome for statistical purposes for masses of children, but when the law is to be enforced, it has to be enforced in reference to a particular boy. There is no system for registering individual births in the country districts, and people do not know the ages of themselves or their children, though a few can form some idea through their horoscopes. Registration itself would not be very valuable, as it would be difficult to know to whom the entry referred, so few names being shared by so many people, unless metal identification discs were used, which would not disappear owing to climatic conditions. It is of no use to think of doctors deciding the disputed cases, for there are no doctors in ordinary rural areas. According to the Act (section 12) the onus of deciding the age will fall upon the Committee in the first place and finally upon the Magistrate, and it will be a very keen Committee that will search out doubtful cases for prosecution. Until some way of registration is found, or until definite powers are given to some authority to declare a boy's age to be some definite number of years, compulsion will be impossible.

167. The same difficulty appears in section 11 in connexion with employment. This section also needs careful consideration in connexion with factory legislation.

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168. In section 8 (2) the excuses that may be taken to justify absence from school are laid down. A boy is exempted if he lives more than a mile from the school, or on account of "sickness, infirmity, domestic necessity, the seasonal needs of agriculture or of his being the sole bread-winner of his family," or if his guardian has a "reasonable objection" to the school. These seem to be so all-inclusive that the Act will be quite ineffectual. It would perhaps be preferable to have a general clause leaving all offered excuses to be judged by the Committee with an appeal to the District Board or District Inspector.

169. (d) Section 3 appears now to need modification in the sense of compelling local bodies to submit any returns, etc., that may be required at any time. There is no penalty attached to disobedience to this clause, which has been but indifferently complied with. Section 4 might now omit reference to the "statements" and be made more general. The clause is of first rate importance and its bearing in the question of an educational cess is dealt with in paragraph 182 of Chapter IX on Finance.

CHAPTER JX.

Finance.

170. **Obstacles to Expansion.**—A most anxious consideration of all the evidence that one has been able to gather points to the existence of two main obstacles in the way of expansion in primary education.

171. One is psychological and consists in the adherence of the people to their traditional small unorganised schools on the one hand, and their instinctive detestation of any suggestion of direct taxation in any form, for any purpose, without even an examination of the possible benefits that may accrue from it on the other. This can only be overcome by well-organised and well-conducted propaganda work, which must be based on facts, and must include arguments to persuade as well as arguments to convince.

172. The second obstacle is financial, and though less serious than the other is, nevertheless, of fundamental importance. Its removal would be the greatest step towards overcoming the first. The object of this chapter is to offer some idea of the cost of the proposals put forward in this report. The estimates are exact and detailed as regards municipalities, and approximate in regard to rural areas and the training of teachers.

173. **Educational Finance in Bengal.**—A reference to paragraph 49 in Chapter II of this report will show:—

- (a) that the existing expenditure on primary education, low though it is in India as a whole, is deplorably low in Bengal as compared with other provinces. The average annual cost of educating a boy is Rs. 3·5 in Bengal as against Rs. 12·9 in Bombay *;
- (b) that the people of Bengal are, nevertheless, paying directly and voluntarily more than those in other provinces, for the fee rate in Bengal is the highest, averaging Re. 1-11 per annum, no other province, except Bihar and Orissa, coming up even nearly to one-half of that;
- (c) that the expenditure from public sources in Bengal is small, and the proportion from provincial sources is very small when compared with that in other provinces; if the cost of educating the boys, which is met from provincial resources, is distributed over the whole population, it averages ·029 per head in Bengal and ·265 in Bombay.

174. Again a reference to paragraph 50 of Chapter II will reveal the fact that Bengal is very far behind Madras, and an immense distance behind Bombay in the direct part taken by Government and local bodies in providing schools for the people. The percentages of public institutions are Bengal 6·9, Madras 26·9, and Bombay 80·7 per cent.

175. All this points inevitably to the conclusion that, even by existing Indian standards, Bengal has much leeway to make up in organising a national system of schools, and that, if efficient free education is to be provided, there will have to be a considerable increase of money expended by Government or by local bodies, or both. It is necessary to discover what would be the cost of a fairly efficient system that would make complete provision for the children who are likely to attend school on a free voluntary basis. The recent District Board Conference resolved "that district boards, in consultation with union boards, be called upon for estimates for making their proposed organisation effective." The district and union boards and municipalities will need much technical help and guidance in preparing these schemes and estimates. A great difficulty in this matter has been the fact that the union boards have been only in the process of formation during the period in which this investigation has been carried on. Until this has been done in detail we must be content with approximate figures liable to subsequent correction.

176. Having obtained these it can then be decided whether any part of the cost is to be met from fees, what part of the public expenditure is to be met from provincial funds, and what from those raised by local bodies when

* NOTE.—This has now risen to Rs. 15.

the full effect can be realised. The District Board Conference wisely refrained from fixing a proportion of the expenditure to be borne as between Government and the local bodies in regard to education, but on the second day ventured on a more general resolution, indicating that a half and half basis would not be considered unfair.

177. We are fortunately in possession of very recent and careful estimate by Mr. West in his "Survey of Primary Education in Bengal, 1919." He put forward two schemes, one rather more ambitious than the other, for the capital and recurring cost of making complete provision for primary education throughout Bengal, except in Calcutta, the Darjeeling District, and the Chittagong Hill Tracts. One small point may be mentioned as illustrating what one trifling and apparently essential item looks like when spread over this country. It seems reasonable that 75 per cent. of the children should be provided with slates. To do this from Government funds would cost over ten lakhs of rupees! The following table summarises Mr. West's estimates even excluding the cost of inspection, scholarships and repairs.

	Scheme I.	Scheme II.
CAPITAL.		
District Board areas	... Rs. 3,12,36,661	Rs. 1,42,55,275
Municipalities	... 17,07,671	9,87,958
Total	... 3,29,45,332	1,52,43,233
RECURRING.		
District Board areas	... 1,90,18,284	Rs. 1,04,77,645
Municipalities	... 9,17,709	5,03,596
Total	... 1,99,36,193	1,09,81,241

178. The choice put before us is a bill for about three crores thirty lakhs capital with two crores recurring on the one hand, and another for about one and a half crores capital and one crore ten lakhs recurring on the other. An examination of the basis of Mr. West's calculations will not reveal any item of extravagance. The most important matter is the salaries of the teachers. What does he propose? The higher of the two alternative figures that he proposes in Scheme I is an average salary of Rs. 15 for the teachers, and in Scheme II an average salary of Rs. 8 per month. My personal view is that, so far from being extravagant, schools staffed in this way would give us no appreciable improvement on existing conditions.

179. I take my stand on a minimum wage of Rs. 15 (£1) a month in towns with a chance of rising to Rs. 30 or Rs. 40 as head masters, and a minimum of Rs. 12 with free board and lodging in country districts with a chance of rising to Rs. 24 or more in the case of larger schools as head masters. I set aside altogether the utter folly of attempting to make any one of our own primary school teachers "passing rich on forty pounds a year!" I do not think the salaries proposed can seriously be challenged as too high. If this be admitted, the cost must be faced. Fortunately a good deal of economy can be effected by system and organisation, as I hope to show. The plan and method of systematization has already been described. It is to cover the populated parts of the country with "school areas" of roughly half a mile radius and to place a national school in the middle of each.

180. **Cost of Proposed System.**—Thirty-five municipalities, apart from Darjeeling and Kurseong, have been worked out on the basis of a half and half division of both capital and recurring costs as between Government and the municipality. Of these specimens will be found in Appendix C—(a) being for Howrah, a large industrial town with expensive sites and needing pucca buildings, and (b) for Rangpur, a fairly typical mufassal municipality forming the headquarters of a district. The covering letter of each scheme

explained the principles, a map showed the distribution of the schools, the enclosed Statement A showed the total capital and recurring cost of the Scheme. Statement B showed the implications of two possible methods of financing the scheme, and at the end were resolutions drafted to enable the commissioners to arrive at clear ideas of what was intended. A copy was sent for each commissioner, so that all could examine the details of the scheme at leisure. At the time of going to press 5 municipalities have not returned any answer in spite of reminders; 2 have objected to the scheme on other than educational grounds, 10 have replied that the scheme will be considered at a future meeting, in some cases because a quorum could not be gathered to discuss the matter; 16 have accepted the policy and plan, but have offered alternative financial proposals; and two namely Rangpur and Chandpur have resolved to accept the scheme in full and to apply to Government for permission to levy the necessary cess.

181. And what are the commitments to which the scheme seeks to pledge these thirty-five municipalities? The utterly poor will have nothing to pay either in fees or taxes. For them the schools will be wholly free. Not as a method of levy, but merely as a convenient way of looking at the amount of the levy, the cost of the scheme has been put at a flat rate per rate-payer. In Howrah it is 2 annas 11 pies (less than three pence) per month, in Rangpur 3 annas 1 pie (just over three pence) per month, and the average for the 35 municipalities is 2 annas 11 pies on the more expensive scheme of financing the project. On the "programme" the amounts are at Howrah 2 annas, at Rangpur 2 annas 6 pies, and the average 2 annas 3 pies. The cess would not be levied at a flat rate, but as a percentage on the municipal valuation. In this case Howrah would pay .7 or .5 per cent., Rangpur 2·0 or 1·6 per cent., and the average would be 2·1 or 1·5 per cent., according to the plan of finance adopted. These amounts cannot be regarded, and, as a matter of fact, are not regarded as high, but as amazingly low, considering that they are to give free primary schools to all boys with staffs that are far better than anything hitherto dreamed of in Bengal, and that they include the capital cost in a manner to be explained below, as well as the cost of repairs to buildings and equipment, and of contingencies. A well-to-do parent at the present time pays Re. 1 for one child in the primary department of a high school, and a poor man pays 4 annas a month in a *pathsalā*, so that both these classes stand to make a profit on the scheme even if only one boy attends the school, while the man who has no children, or who is rich enough to keep his boy on in a socially select school with high fees, can of them all best afford the cess.

182. It is obviously not the amount of the cess that stands in the way of the adoption of the scheme. Indeed on several occasions I have been asked to approach Government so that orders may be issued compelling the commissioners to put the scheme into force, so that they would be able to evade the odium of having voted for a cess. Under section 4 of the Bengal Primary Education Act of 1919 Government can "direct the commissioners to provide the necessary school accommodation, staff and equipment for all children, not being less than six or more than eleven years of age, likely to attend primary schools voluntarily," (whether free or not is not laid down) "within the municipality, and to assume the direct management and control of all such schools." At the same time section 17 (2) prevents the levy of a cess, except by the vote of two-thirds of the commissioners. My own view is that power should be taken by Government to compel the levy of a cess for this purpose when necessary.

183. And here I wish to emphasise as strongly as possible this point. The new scheme, accepted as it has been on all hands as an enormous step forward, and providing capital as well as recurring costs, demands from these 35 municipalities Rs. 3,34,165 on the more expensive plan, and Rs. 2,48,635 on the less expensive method. The people of the same municipalities are at this moment contributing in rates, fees and contributions Rs. 3,00,014, or actually more than half a lakh a year more than the lower figure that I am asking them to pay. At the risk of labouring the point I will give three concrete instances taken at random. Dacca is a large city with expensive sites,

It pays for boys' schools Rs. 1,664 from municipal funds, Rs. 29,640 as fees and Rs. 3,324 as contributions or a total of Rs. 35,628. Our scheme only asks Rs. 30,000 from the town as a cess on the more costly plan, and Rs. 22,000 on the less costly one. Burdwan is an ordinary district headquarters municipality. It pays at present from the three stated sources Rs. 7,852, while our estimated cess is Rs. 11,000 at the higher rate and Rs. 7,900 at the lower. Chittagong now pays Rs. 11,744 it is asked to pay Rs. 11,000 or Rs. 8,650, according to the plan adopted.

184. The difference between these two plans is not hard to appreciate. In the more expensive one a loan is taken by the municipality for its share of the capital cost, to be paid back within a fixed period. (The rate of interest has been reckoned at 6 per cent. per annum.) This converts the capital into recurring expenditure, which is added to the ordinary recurring cost of salaries, contingencies, including menials, and repairs to buildings and equipment, and the cess levied so as to cover all these charges. The second plan is to arrange the building programme over a number of years, putting heavy capital expenditure early and decreasing it as the recurring expenditure increases owing to the opening of schools. This obviates the taking of any loan with the consequent addition to recurring charges. The disadvantage of the programme is that some rate-payers have to wait some time before they get their own local free school, but the permanent amount of the cess is smaller. It is perfectly fair to work the scheme by a loan, and to allow posterity to pay some of the charges, and that plan has the advantage of allowing all the schools to be opened together in the second year.

185. The towns, then have no cause of complaint against the scheme for collectively, and in many cases individually, they actually spend less by it than they are doing at present. It simply amounts to a way of spending their money to greater advantage by having a common plan. It is quite a different matter in the case of Government. The total capital cost for the 35 towns, as shown in Appendix L (b), is Rs. 19,65,210, of which Government would have to find Rs. 9,82,605. The total recurring cost of salaries, contingencies and repairs to buildings and equipment is Rs. 4,72,193, of which Government would have to find Rs. 2,36,097, as against Rs. 90,984, which is its present contribution. That is to say Government would have to give more than double what they give now. The reason has already been shown to be, not that this demand is too large, but that the amount given hitherto is far too small. The figures given in Appendix L (b) show the financial requirements whether a loan or a programme is adopted.

186. There are 115 municipalities in Bengal, so that 80 remain to be organised. They are for the most part smaller than those already dealt with, for these, with one or two exceptions, are either at district headquarters or close to Calcutta. They would, therefore, cost on an average less than those that have been worked out. The municipalities contain but a very small population of the inhabitants of Bengal, but they are comparatively dense centres of population and are scattered about over the whole provincial area. It is to be recommended that they should all be thoroughly organised and set going as soon as possible, so that the idea of the scheme should have roots everywhere. This is a problem with clear and definite limits and its practical solution within the next few years would set a standard which circumstances would compel all Bengal to follow. Even if only the schemes that have been worked out were to materialise the effect would be proportionately greater than the additional cost.

187. The real problem of primary education however lies not in the towns, but in the rural areas. It is perhaps best that the panchayeti union scheme should be abandoned in favour of one for enabling union boards to organise their own complete schemes. They are only now being formed, and some of them are very anxious to accomplish something without delay. They are not able to understand Secretariat delays, and will lose heart if a long interval is allowed to elapse between the moment of their enthusiasm and the commencement of actual work. *Bis dat qui cito dat.* For this reason the chain

of correspondence should be very short and the officer in charge should be given a very wide discretion in according prompt sanction to proposals within certain definite limits and commitments. If this is contrary to Secretariat tradition, I venture respectfully to suggest that, in this matter of primary education, expedition is of such vital importance on account of the human element involved that a departure from custom would be justified.

188. In the 25 districts of Bengal there are altogether about 6,700 unions containing a varying number of people and the widest possible differences of geographical character and grouping of population. It is at present impossible to generalise on any point, as we have only been able to work out some 23 union areas in detail, and to survey a number of others in a more superficial manner. This much, at least, seems clear, that the general plan laid down is applicable to many unions—all that we have examined—and that the district board authorities individually and, through their non-official representatives, collectively have expressed their approval of, and confidence in, the plan if only the financial question can be answered. Several of the new union boards have already expressed their desire to proceed with the scheme at once, and the Khulna District Board has undertaken to work out the proposals as an experiment in three of its unions, and funds have been sanctioned. One's impression is that there is greater earnestness in the matter in the union board areas than in the municipalities. A specimen area, which seems fairly typical, is worked out with a map in Appendix D. It will be noted how at present the schools cluster in parts, leaving other places unprovided, while under the new proposals the whole population gets a chance.

189. The country people are generally inclined to give the teachers free board and lodging. This is probably not quite such a great advantage as its sounds, and it generally involves the rendering of more or less arduous services in return. It has been thought, however, that in fixing rates of pay for the country a rather lower standard may be taken on this account than that laid down for the towns. Rupees 12 has been taken as a minimum and Rs. 24 has been considered sufficient for a head master, all schools being made free. It has also been thought proper to allow for a new type of school, to be called an "infant school." That is to say when there is a group of small children just too far away to be able to walk to the ordinary primary school they might be taught for a couple of years in their own hamlet. These schools might be aided and would only meet for half the ordinary school hours, so that the teacher might do other work, and might teach the infant classes of the neighbouring school as well, or another infant school. This proposal has been welcomed very cordially in most districts. The average number of lower primary schools necessary for a union appears to be 4·4, and these would be fed by an average of 1·7 infant schools.

190. The question as to how capital costs should be met is a difficult one. There is no doubt that when a teacher puts up his own building, he does it amazingly cheaply and keeps it in repair, so that it lasts for very many years. Public authorities cannot work so cheaply, and I am told that a large number of schools that have been put up with public or subscribed funds are falling to pieces, I saw a good many of these. In paragraph 162 above (Chapter VIII), the Village Self-Government Act is quoted as compelling the union board to repair and maintain its schools. This may be left then as a charge on the ordinary income of the union boards. It may be possible to secure existing accommodation in central places, and to manage without special school buildings. This should only be the case where the other course is really impossible. Our plans allow nothing for capital expenditure on infant schools. I have seen quite a number of buildings that were quite well suited for their purpose that had been erected for 50 or 60 boys at a cost of about Rs. 200 to Rs. 300, including everything. This figure can hardly be used, because there is an extraordinary variation in the views expressed in different unions, and much work is needed before we can generalise on the point. Of the unions worked out in detail average estimates obtained in consultation with the people themselves (putting aside one absurdly extravagant one) point to Rs. 1,200 for buildings and Rs. 300 for equipment or Rs. 1,500 in all, as the sort of figure that would

have to be allowed for a union board area. If we consider this for all the unions in the province, the bill at once jumps to over a crore, but it is of no use to shudder at these large figures, or even to contemplate them. It is better to adopt the principle of following the development of union boards, of which only about 1,500 are expected to begin work this year and to proceed as rapidly as funds will permit. These 1,500 unions on our calculation would demand twelve and a half lakhs, which is a much more possible figure, large as it is.

191. It is feared that there is no alternative to the whole of this money being found by Government. The district boards might possibly be induced to take up a loan, but there is great nervousness about this, and to press it just now would probably be to defeat the end in view.

192. My recommendation is therefore that during the coming year a much larger number of union board areas (say 500) should be carefully worked out and experiments tried in as many as possible of them, so that we can really look the matter fairly in the face. It would be advisable that among those to be worked out at once there should be a group constituting one whole district, and that a complete scheme of co-ordinated schools, cultural and vocational, should be designed and estimated for at the same time. This would take a year in all for a special officer with necessary assistance; and for this an estimate for the coming year has already been submitted.

193. If this recommendation be accepted, the question of recurring expenditure would be gone into at the same time. Provisional conclusions may, however, be suggested at once, the figures including staff and contingencies, but not repairs. The circumstances of the unions which have been examined point to an average recurring cost per union of something over Rs. 2,600. Subtracting the existing district board grant (made from its own funds), we may say that about Rs. 2,500 would have to be divided equally between Government and the union board, or Rs. 1,250 each per annum.

194. It is, of course, open to serious question whether Government should not contribute a larger proportion of the cost, but, for purposes, of argument, that basis may be accepted for the present. It should also be explained that no increase of district board grants has been estimated for, because, with possibly one or two exceptions, the financial position of the boards is this. They have but few heads of revenue, and these are fixed and inexpansive. Meanwhile wages, salaries and the cost of materials are going up steadily, and insistent demands are being made by other departments, especially that of sanitation, upon the exchequer. So far from an increase being possible, we have rather to fear retrenchment inasmuch as many district boards are handing over certain sources of revenue to the union boards. I sat with officials of the boards and tried hard to find new sources of revenue that might be utilised for primary education. Calcutta has an unworked gold mine awaiting development in an amusement tax on the thousands and tens of thousands of people who go to races, football matches, cinemas, theatres and so on, and who obviously are not short of money; but in the country there seems to be nothing. Taxes on shops, on bridegrooms, and so on were considered, but would not meet the case. The union boards are capable of producing the money if the psychological factor can be put right.

195. The average population of a union area is about 5,600, and the number of holdings something over 1,000. If we divide the Rs. 1,250 at which we arrived in paragraph 193 above for recurring expenditure, it works out at about Re. 1-4 per annum per holding, or between 1 anna and 2 annas per month at a flat rate. Here, again, a percentage would probably be the basis of the levy, but even at a flat rate no real financial hardship would be involved, even for the poorest holder, especially when it is remembered that they are getting the feet of all their boys on the educational ladder without further cost. The children of the very poor would also reap this benefit without any payment.

196. Peasants in generous mood say they are willing to give one, two or even more annas each month to secure free primary education for their people, but as soon as it is suggested that the amount should be

raised in the form of a cess, their attitude changes, and they show signs of fear, if not of anger, at the notion. The whole question will, therefore, need most careful handling, and money spent in paying for completely organised unions in different places would be well spent as a means of propaganda, though there would have to be a limit to the period (say five years) during which Government would pay largely for the organisation. At the end of such a period the pioneer unions would fall into line with whatever general system of finance might then have been adopted.

197. Before leaving the subject, it may be desirable to ask the question as to why Government should not pay the whole bill for primary education. This has been put to me as a *right* by very many people, while others have urged it as matter of policy if we are ever to get anything done. There are, however, difficulties in the way. The whole bill is an enormous one and cannot be undertaken all at once. It is therefore necessary to have some means of selecting the areas which are to be put right first. Those that are keenest will offer to do most, having regard to their resources, and will be the first to derive the benefit. They will be more likely to check waste if they realise that it is their own hard-earned money that is being wrongly used. Moreover, if the people know that Government is bound to provide everything, their ideals will overcome all notions of economy. It has been amazingly difficult in the many meetings at which I have been present to get any practical connexion established between what we "should do" and what we can pay for doing. Highly paid teachers of wonderful qualifications, beautiful premises with roads leading to them from every cottage, apparatus and libraries, etc., etc., all these are demanded, but when it comes to paying two or three annas a month towards getting it started, enthusiasm cools and the suggestion is resented in a painful anti-climax. The most weighty reason, then, for rejecting the policy that Government should do everything by indirect taxation is the very urgent need of educating the people in public finance of this simple nature. For this reason a special education cess is probably preferable to a mere increase in rates, though the latter has much to recommend it. Rather than give up the principle it would be better to relieve the union boards of their expenses in connexion with police than those in connexion with education. The proportion paid by Government might be more than half, but for each municipality and union board it ought to be fixed at some definite ratio. To this end it might be well to classify these local bodies according to their resources as needing 80, 70, 60, and 50 per cent. of the expenses as the share of Government. This classification would be more efficiently done by executive officers than I could hope to do it. No attempt is therefore made here to offer such a classified list.

198. **Extra Cost of Administration.**—It is perhaps not necessary at this stage to estimate the details of the cost of the administrative changes proposed. There would be transfers among members of the departmental clerical staff, but no large increase on that head. The extra cost of appointing District Inspectors in the Provincial Educational Service would be the difference between the average pay of 25 such officers and that of the 25 existing District Deputy Inspectors, namely ($Rs. 323 \times 25 - Rs. 96 \times 25$, all $\times 12 = Rs. 68,100$). This has already been sanctioned in principle by Government. There would also be the salary of the proposed new Director of Elementary Education. The total extra cost would probably not exceed one lakh a year. The Second and Assistant Inspectors would be left with the Divisional Inspectors in the service of the Board of Secondary School and Intermediate College Education.

199. **Teachers' Institutions.**—As regards finance, it only remains to estimate the cost of the proposed elementary teachers' institutions attached to the social welfare centres near each district headquarters. These institutions would take the place of the existing normal and *guru*-training schools, and each would train all the elementary teachers of its own district (*vide* paragraphs 131-136 above). This report is not closely concerned with middle education, so that that department is not estimated for or referred to, except that the number of Provincial Service heads of the existing normal

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schools at Calcutta, Dacca, Hooghly, Rangpur and Chittagong have been deducted from the total number (25) of Provincial Service men that would be required.

200. In paragraph 136 in the chapter on the training of teachers' it is stated that ten teachers would be required for each of the primary teachers' institutions. These would be arranged thus—

One Provincial Education Service man, averaging Rs. 323 per month.

Three Subordinate Service men, averaging Rs. 96 each per month—
Rs. 288.

Six men of the type now employed as assistants in the newest type of *guru*-training school and estimated by the Director at Rs. 30 each
—Rs. 180.

Menials and contingencies may be reckoned at Rs. 75. This makes a total recurring cost of one school, Rs. 866 per month, or Rs. 10,392 per annum. Taking 25 institutions for the complete scheme, this works out to a recurring cost of Rs. 2,59,800. From this may be deducted the cost of the five Provincial Service men referred to in the preceding paragraph, *i.e.*, Rs. 19,380, leaving Rs. 2,40,420, as against the corresponding figure of Rs. 2,18,040 of the existing scheme regarded as completed, the difference being Rs. 22,380.

201. It has to be remembered that for this it proposed to train (150×25) 3,750 teachers in the former, as against (79×40) , 3,160 in the latter, or nearly 600 more. It must be admitted, nevertheless, that the proposed scheme is the slightly more expensive, each student costing Rs. 64 (£4-4) a year, as against Rs. 60 in the existing scheme, apart from the stipends which would be the same man for man in either case, and would be at the rate of Rs. 11 per month as at present.

202. The capital cost of the proposed scheme, apart from land, would be (a) class rooms for 150 students, at 12 square feet per man, costing (say) Rs. 6 per square foot of plinth area, or a total of Rs. 10,800; and (b) hostel accommodation for the same number would cost $(150 \times 60 \text{ square feet} \times \text{Rs. } 6)$, Rs. 54,000. Class-rooms and hostels together would thus cost Rs. 64,800, or for 25 institutions, Rs. 1,620,000. This is Rs. 12,30,000 less than an estimate for the existing scheme completed for all subdivisions in the province, but from this difference would have to be found quarters for the staff. Even so there would be a substantial saving on capital account if these new proposals were adopted.

CHAPTER X.

Summary and Conclusion.

203. Before closing this Report it seems to be necessary to summarise in a few paragraphs the lines upon which an attempt has been made to grapple with this great and difficult problem of the expansion and improvement of primary education in Bengal in the hope of making it free to all within at most a decade, and compulsory for all boys of 6—10 years of age as soon as possible after facilities have been provided for them all.

204. **Chapter I** contains a reference to the orders under which the Report has been prepared, and in it the problem is envisaged as only one phase of a much larger social problem, namely that of advancing a simple and, in some parts of the country, a primitive civilization up the long and steep road of progress. The ideal is a spiritual one, the attainment of which involves a fixed purpose. The accomplishment of this purpose is necessarily conditioned by the adoption of means which take into account the existing material and social environment of the individual, and is only to be brought to pass by and in a triumphant struggle of the individual against that environment on behalf of society. The first stage of this progress must be to give the opportunity of enlightenment to all. But there are certain reasons that may be urged against the spread of literacy; these are of comparatively small importance in relation to the larger issues involved, though they must be carefully borne in mind so that dangers may be avoided as far as possible. The spirit of courageous adventure must characterize our plans rather than that of mere discretion, for India is far behind in the race.

205. **Chapter II** sets out to examine the course of events that has led to the existing conditions and displays these conditions themselves. Two antagonistic policies of the past can now be reconciled. Recognising the good results of the long struggles of the past it is clear that a new departure is now demanded. The chapter closes with a comparison of Bengal with other provinces, especially as regards finance.

206. **Chapter III** shows the nature of the organisation that is now required in primary education, the method of bringing it into being, and its relations with other educational activities, the whole constituting a complete national system of schools. Actual examples have been worked out to illustrate the proposed system.

207. **Chapter IV** deals with the difficult question of religion in the public schools and recommends a method for meeting the wishes of the people who desire definite religious and other special instruction for their children.

208. **Chapter V** shows the economic aspect of the general social problem, illustrating what is being done in the way of training in agriculture and industries. It proposes a method of providing instruction in crafts, industries and agriculture at a low stage of specialization. A new class of institution is suggested at which all efforts in the direction of social development at that stage will at first centre. These institutions are to be called "Social Welfare Centres."

209. **Chapter VI** indicates the inadequacy of the present pay of teachers, and shows that this must be improved if better men are to be found for the training schools. The difficulties of training and keeping teachers are set forth, and new "Teachers' Institutions" to be connected with the "Social Welfare Centres" are proposed to take the place of the existing Normal and Guru Training Schools. The number of teachers turned out annually is compared with the number required, and the existing scheme is compared with that now proposed. A plan of giving certificates, and licenses, permanent and temporary, is suggested for the new national system.

210. **Chapter VII** opens with a statistical paragraph on middle and primary schools, and discusses generally the questions of sites, buildings, equipment and sanitation. It enters into the causes of inefficiency and makes suggestions for improvement. The chapter closes with proposals as to a method of applying compulsion in school areas.

211. **Chapter VIII** describes the difficulties of subordinate inspecting officers and proposes certain changes. Municipal and Union Board school committees containing representatives of the teachers are suggested. The present administrative machinery is shewn to be overburdened and unnecessarily complicated as far as elementary education is concerned. New arrangements are suggested and reasons for them advanced. An examination of the Bengal Primary Education Act concludes the chapter.

212. **Chapter IX** takes up the all-important question of finance, but stresses the fact that the problem is at least equally a psychological one. Bengal is compared with other provinces. Mr. West's estimates for a complete scheme of primary education are examined, and the minimum salary that can be considered suitable in the circumstances is laid down. Detailed estimates for 35 municipalities are discussed with their financial implications for the local bodies and for Government. The extension of the scheme to all municipalities is advocated. The rural problem is taken up, and the power to deal promptly with willing but ignorant people is shown to be necessary. Estimates for rural schemes are considered and the need for further experiment emphasised. The question as to how far Government should provide primary schools from indirect taxation is opened. The additional cost of the proposed changes in administration is estimated. The finances of fairly complete provision for training teachers for the province on the present and the proposed plans are compared.

213. **Chapter X** summarizes the chapters of the Report and proceeds to lay down the points on which the decisions of Government are needed.

214. Decisions are called for upon the following points:—

- A.—Whether universal literacy is to be the definite aim of Government. The answer is taken to be in the affirmative.
- B.—Whether provision is to be made in the schools for the religious instruction of those children whose parents desire it.
- C.—Whether (1) the present plan of giving grants to schools started by private enterprise is to be continued, or (2) whether the available public funds are to be gradually transferred to a carefully organised national system of public schools situated in school areas covering the whole population of Bengal.
- D.—If C (2) is adopted, whether the system is to be co-ordinated to make provision at every stage for vocational education.
- E.—If D is answered in the affirmative, whether the vocational training is at first to be given in central schools at which the agricultural and industrial activities of the district are to be focussed, and vocational teachers trained.
- F.—If E is answered in the affirmative, whether an attempt should be made to develop the proposed "Social Welfare Centres" at the same places.
- G.—Whether the training of elementary (middle and primary) school teachers should be centralised for each district.
- H.—Whether, when the new university, and secondary school and intermediate college organisations are developed, there should also be a reformed and simplified organisation for the control of elementary education closely connected with that of the local bodies which are to control primary schools.
- I.—Whether, if so, the new organisation should be under the Minister of Education or the Minister of Local Self-Government.
- J.—Whether primary education is to be made free in the near future, provision being made for compulsion within (say) ten years.

K.—If so, and if a public system of schools is to be developed, whether the whole cost is to be borne by the Provincial Government and, if this last point is decided in the negative, what proportion of the cost the central Government will bear generally or for individual local bodies.

L.—Whether, in the event of a local body declaring itself unable to meet its share of the expense, the levy of a special education cess, or of an increased rate, shall be made compulsory or not.

M.—Whether, in the event of a decision to adopt a national system of free schools, schemes should be proceeded with at once for all the municipalities, and a large number of union board areas, to be budgetted for in the coming year.

215. It may be said in conclusion that the recommendations of this Report have received approval from the large majority of those who have been consulted about them so far as the principles, the policy, the plans and even the estimates are concerned. The difficulty arises rather over the method than the amount of payment. This is a matter of high policy which must be left to the decision of Government in the interests of the children of Bengal.

APPENDIX A.

BENGAL ACT No. IV OF 1919.

THE BENGAL PRIMARY EDUCATION ACT, 1919.

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Appendix A—continued.**BENGAL ACT No. IV OF 1919.****THE BENGAL PRIMARY EDUCATION ACT, 1919.**[Published in the *Calcutta Gazette* of the 14th May, 1919.]

An Act to provide for the extension of primary education in Municipalities and in certain other areas in Bengal.

WHEREAS it is expedient to provide for the extension of primary education in Municipalities and in certain other areas in Bengal;

It is hereby enacted as follows:—

PART I.**Preliminary.**

Short title and extent.

1. (1) This Act may be called the Bengal Primary Education Act, 1919.

(2) It extends in the first instance to all Municipalities in Bengal:—

Provided that the Local Government may, by a notification published in the *Calcutta Gazette*, extend the provisions of this Act, with such modifications, for the purpose of adaptation, as they may deem fit, to any area in a Union constituted under section 38 of the Bengal Local Self-Government Act of 1885, and may authorize the Union Committee for such area to exercise and perform all or any of the powers and duties conferred and imposed on the Commissioners by this Act, subject to such control by the District or Local Board as the Local Government may prescribe.

Ben. Act I of 1885.

Definitions.

2. In this Act, unless there is anything repugnant in the subject or context,—

(1) “to attend a recognized primary school” means to be present for instruction at such school for so many and on such days in the year and at such time or times on each day as may be prescribed by the School Committee for such school, subject to the rules and orders of the Education Department of the Local Government;

(2) “Commissioners” means the persons for the time being appointed or elected to conduct the affairs of a Municipality;

(3) “guardian” includes a parent or any person who is liable to support, or has the custody of, a boy not being less than six or more than ten years of age;

(4) “Municipality” means Calcutta, as defined in clause (7) of section 3 of the Calcutta Municipal Act, 1899, or any place in which the Bengal Municipal Act, 1884, is in force;

Ben. Act II of 1899.

Ben. Act II of 1884.

(5) “primary education” means such elementary education as may be prescribed from time to time for primary schools by the Education Department of the Local Government;

(6) “recognized primary school” means a school (or a department of a school) appropriated to primary education and for the time being recognized by the Education Department of the Local Government for the purposes of such education; and

(7) “School Committee” means a committee constituted under section 7.

PART II.**Voluntary Primary Education.**

Statement to be submitted by Municipalities.

3. Within one year from the commencement of this Act or within such other period as may be prescribed by the Local Government in this behalf, the Commissioners shall submit to the Local Government a detailed statement, in such form as may be prescribed by the Local Government, containing the following particulars in respect of the Municipality:—

(a) (i) the number of children, not being less than six or more than eleven years of age, within the Municipality;

(ii) the number of boys, not being less than six or more than ten years of age, therein;

(b) the school accommodation for the staff of, and the attendance at, existing primary schools;

(c) the school accommodation, staff and equipment required if suitable and adequate provision were to be made for the primary education of—

(i) all children referred to in clause (a) (i) likely to attend primary schools voluntarily; and

(ii) all boys referred to in clause (a) (ii):

- (d) the manner in which and the periods within which it will be possible to provide the necessary school accommodation, staff and equipment referred to in clause (c) under the direct management and control of the Municipality;
- (e) the existing expenditure incurred by the Municipality on primary education and the expenditure to be incurred yearly in order to provide such school accommodation, staff and equipment;
- (f) the receipts already available, and the income including the probable receipts from any education cess that may in future be levied under section 17, which it may be estimated will be available to meet such expenditure; and
- (g) the amount of grant or assistance from the Government which the Commissioners consider would be necessary to enable them to provide for primary education within the Municipality, or any part thereof.

4. The Local Government, after considering the statement required by section 3 and the conditions and resources of the Municipality, and after determining the amount of financial assistance from the Government which may be necessary in order to provide for primary education within the Municipality, may, if satisfied that the Municipality is able to meet the expenditure involved, direct the Commissioners to provide the necessary school accommodation, staff and the equipment for all children, not being less than six or more than eleven years of age, likely to attend primary schools voluntarily within the Municipality and to assume the direct management and control of all such schools.

Commissioners
to make provision
for primary education.

PART III.

Compulsory Primary Education.

5. The provisions of this Part shall not come into operation until a notification has been issued under section 6, sub-section (2).

6. (1) If, after complying with the directions of the Local Government under section 4, the Commissioners are of opinion that the Primary education of all boys, not being less than six or more than ten years of age, should be made compulsory within the Municipality, or any part thereof, they may apply to the Local Government, in such manner as may be prescribed by rules made by the Local Government, for permission to introduce therein compulsory primary education for such boys.

Operation of
Part III.

Primary education
when
to be declared
compulsory.

(2) The Local Government, after considering the application and after determining the financial assistance from the Government which may be necessary to provide for compulsory primary education within the Municipality, shall, if satisfied that the Municipality is able to meet the expenditure involved, grant the permission asked for, and the Commissioners shall thereupon cause a notification to be issued declaring that primary education shall be compulsory for all such boys within the Municipality, or any part thereof, as the case may be.

(3) Every notification issued under this section shall be published in the *Calcutta Gazette* and in the local newspapers, if any, and shall be posted up at the Municipal office and at such other places, as the Commissioners shall deem necessary, specifying the date on and from which primary education shall be compulsory within the Municipality, or any part thereof.

(4) No notification shall be issued by the Commissioners under this section except in pursuance of a resolution passed at a special general meeting convened for the purpose and at which not less than two-thirds of the total number of Commissioners are present.

7. When a notification has been issued in any Municipality under section 6, sub-section (2), the Commissioners shall appoint a School Committee, to be constituted in such manner as may be prescribed by rules made under section 15:

Constitution
of School Com-
mittee.

Provided that a Deputy Inspector or a Sub-Inspector of Schools, at least one Commissioner and one or more residents of the Municipality, other than a Commissioner, shall be members of the Committee.

8. (1) In every area to which the provisions of this Part apply, it shall be the duty of the guardian of every boy, not being less than six or more than ten years of age, residing within that area to cause such boy to attend a recognized primary school unless, in the opinion of the School Committee, there is a reasonable excuse for his non-attendance.

Duty of guardian to
send boy to school.

(2) Any of the following circumstances shall be deemed to be a reasonable excuse within the meaning of this section:—

- (a) that there is no recognized primary school within a distance of one mile, measured by the shortest route, from the residence of the boy which he can attend, and to which the guardian has no reasonable objection to send the boy;
- (b) that the boy is prevented from attending the school by reason of sickness, infirmity, domestic necessity, the seasonal needs of agriculture or of his being the sole breadwinner of his family;
- (c) that the boy is receiving education in some other satisfactory manner.

Order of Magistrate to compel attendance.

9. (1) If the School Committee is satisfied that a guardian who is required under section 8 to cause a boy to attend a recognized primary school, has failed to do so, it shall, after giving a warning in writing to such guardian, apply to a Magistrate for an order to compel the guardian to enforce the attendance of such boy; and the Magistrate shall fix a day for the hearing of the application and cause notice thereof to be given to such guardian.

(2) On the day fixed for the hearing of the application or on any subsequent day to which it may be adjourned, and after hearing the guardian or his authorized agent, if present, the Magistrate, if satisfied that the facts alleged in the application are true, may pass an order directing the guardian to cause such boy to attend a recognized primary school from a date to be specified in such order.

Penalty for failure to obey order.

10. (1) Any guardian who fails to comply with an order passed under section 9 shall, on conviction before a Magistrate, be liable to a fine not exceeding five rupees and also to a recurring fine not exceeding one rupee for each day after the first during which he continues so to offend.

(2) No Magistrate shall take cognizance of an offence under this section except on the complaint of the School Committee.

Prohibition of employment of boys.

11. No person shall, without the permission of the School Committee, employ any boy not being less than six or more than ten years of age, who is required to attend a recognized primary school under this Part:

Provided that such permission shall not be necessary if the employment of the boy does not interfere with his attendance at such school.

Employer's liability.

12. (1) The School Committee may prosecute any person who, after due warning, contravenes the provisions of section 11.

(2) Unless such person satisfies the Magistrate that there is a reasonable excuse, within the meaning of section 8, sub-section (2), for the non-attendance of the boy, or that the time and nature of employment of the boy are such that he is not prevented from attending a recognized primary school, or that the boy was taken into employment under false representations as to age, residence and other conditions, such person shall, on conviction before a Magistrate, be liable to a fine not exceeding twenty rupees.

Delegation of some of the functions of the School Committee.

13. An application to a Magistrate under section 9 or a complaint to a Magistrate under section 10 or section 12, may be made on behalf of the School Committee by such person as may be authorized by the School Committee by general or special order in this behalf.

Remission of fees.

14. When primary education has made compulsory in any municipality, or any part thereof, if a guardian, who is required under the provisions of this Part to cause a boy to attend a recognized primary school, satisfies the School Committee that he is unable to pay the fees or any part of the fees ordinarily charged in such school, such boy shall be admitted to such school free of charge, or at such reduced fees as the School Committee may determine, for the period during which the guardian is required to cause the boy to attend a recognized primary school.

Power of Commissioners to make rules.

15. The Commissioners may, with the previous sanction of the Local Government, make rules prescribing—

- (a) the manner in which the School Committee shall be constituted, the number of its members, its duties and its mode of transacting business;
- (b) the steps which the School Committee may take to secure the attendance of boys at school.

Exemption from compulsory education.

16. The Local Government may, by notification in the *Calcutta Gazette*, exempt any class of persons or any community, in any area to which this Act extends, from the operation of this Part.

PART IV.**Education Cess.****Education cess.**

17. (1) If the existing resources of any Municipality including any grant from the Government, are not sufficient to cover the cost of primary education within the Municipality, the Commissioners may, with the previous sanction of the Local Government, impose a tax, to be called the "education cess"; and all amounts derived therefrom shall be devoted solely to the purposes of primary education, whether voluntary or compulsory, within the Municipality.

(2) An education cess shall not be imposed unless the Commissioners by a resolution passed at a special general meeting convened for the purpose and in favour of which two-thirds of the Commissioners have voted, determine to impose such cess.

(3) The education cess shall be levied in such manner as may be prescribed by rules made by the Local Government, and the cess so levied shall be a rate amounting to the sum required, after deducting the Government grant, the school receipts and the receipts from endowments and contributions, to meet the expenditure on primary education, together with ten per cent. above such sum to meet the collection charges and the probable losses due to non-realization from defaulters.

PART V.

Supplemental.

18. (1) The Local Government may, after previous publication, make rules to carry out the purposes of this Act. Power of Local Government to make rules.

(2) In particular, and without prejudice to the generality of the foregoing power, the Local Government may make rules prescribing the manner in which—

(a) applications under section 6, sub-section (1), shall be made; and
(b) the education cess shall be levied.

(3) All rules made under this section shall be published in the *Calcutta Gazette*.

19. All primary schools maintained by the Commissioners within a Municipality, or any parts thereof, under the provisions of this Act shall be open to inspection free of any charge by the inspecting officers of the Education Department of the Local Government and such other persons as the Local Government may appoint in this behalf. Schools to be open to inspection.

20. Every person authorized by the School Committee under section 13 and every officer and servant of the School Committee, shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code. Certain persons to be deemed public servants.

21. When, in the opinion of the Local Government, the Commissioners have made default in any of the requirements of Part III of this Act, the Local Government may, after considering any explanation of the Commissioners, by a notification in the *Calcutta Gazette*, stating the grounds of such order, cancel any notification which has been issued under section 6, sub-section (1). Withdrawal of notification on default.

APPENDIX B.

Nos. 188-193T.—Edn., dated Darjeeling, the 2nd June 1919.

From—The HON'BLE MR. L. S. O'MALLEY, C.I.E., I.C.S., Secretary to the Government of Bengal, General Department.

To—The Commissioners of the (1) Presidency Division, (2) Burdwan, Division, (3) Dacca Division, (4) Rajshahi Division, (5) Chittagong Division and (6) The Chairman, Calcutta Corporation.

I AM directed to address you on the subject of the extension of primary education in municipal areas.

2. Section 3 of the Primary Education Act, which was passed by the Bengal Legislative Council on the 27th March 1919 and published in the *Calcutta Gazette* of the 14th May 1919 as Act IV (B. C.) of 1919, provides that each municipality shall submit, within one year from the commencement of the Act or within such period as may be prescribed by the local Government, returns showing—

- (1) the total number of children between the ages of 6 and 11 within the municipality;
- (2) the number of boys aged 6 to 10;
- (3) the number actually attending primary schools; and
- (4) the provision now made for primary education, e.g., the schools in existence, their accommodation, staff and equipment.

3. Municipalities are also required to prepare a programme for providing primary education for all children aged 6 to 11 likely to attend schools voluntarily and also for all boys aged 6 to 10, together with an estimate of cost for each of the programmes and a statement of the methods by which the cost can be met. Section 4 empowers the local Government, on receipt of these statements and after considering the conditions and resources of the municipality, and also after determining the amount of financial assistance they will be able to contribute, to direct any municipality to provide, within a suitable period, the necessary school accommodation, staff and equipment for children aged 6 to 11 likely to attend schools voluntarily and to take over the complete management of all primary schools within its jurisdiction. If, however, it is found that the existing resources of the municipality, together with any grant which Government may sanction, are not sufficient to cover the cost of primary education within it, the Municipal Commissioners may, under section 17 of the Act, levy an educational cess with the previous sanction of the local Government. This cess may be levied as a contribution towards the cost of primary education on either a voluntary or a compulsory basis. Under section 17 (3) of the Act it shall, if levied, be a rate amounting to the sum which, after deducting the Government grant, the school receipts and the receipts from endowments and contributions, will be required to meet the expenditure on primary education together with 10 per cent. above such sum to defray collection charges and probable losses due to non-realization from defaulters.

4. The Governor in Council is anxious that the scheme contemplated in the Act should be given effect to as soon as possible, and I am, therefore, to request that you will be so good as to obtain from the ^{Municipalities in your Division} Corporation of Calcutta at an early date the information required under section 3 of the Act in the accompanying forms together with a statement of their views as to the manner and periods within which it would be possible to provide necessary school accommodation, staff and equipment for—

- (a) all children aged 6 to 11 likely to attend primary schools voluntarily; and
- (b) all boys aged 6 to 10.

The Deputy Inspectors and Sub-Inspectors of Schools are being instructed to give the municipalities assistance in preparing the returns.

No. 194T.—Edn., dated Darjeeling, the 2nd June 1919.

Memo. by—S. N. Roy, Esq., Under-Secretary to the Government of Bengal.

COPY forwarded to the Director of Public Instruction, Bengal, for information and guidance.

Appendix B—continued.

STATEMENT I.

Detailed statement showing accommodation, staff and equipment required for providing primary education under section 3, Part II of the Bengal Primary Education Act, 1919, in the Municipality of

Serial No.	Items.	Details.	Remarks.
1	No. of— (i) Children aged 6 to 11 likely to attend primary schools voluntarily (<i>vide</i> section 3 of the Act). (ii) Boys aged 6 to 10. (<i>vide</i> section 3 of the Act).		
2	Existing primary schools [<i>vide</i> section 3 (b)]— (i) No. (ii) Accommodation ... (iii) Staff ... (iv) Attendance ...		
3	Requirements if suitable and adequate provision is made for primary education of [<i>vide</i> section 3 (c)]— A.—All children shown in serial No. 1(i) who are likely to attend primary schools voluntarily— (i) Schools (ii) Accommodation ... (iii) Staff ... (iv) Equipment ...		
	B.—All boys shown in serial No. 1(ii)— (i) Schools (ii) Accommodation ... (iii) Staff ... (iv) Equipment ...		
4	Total cost of 3-A(i)(iv)— (i) Recurring (ii) Non-recurring ...		
5	Total cost of 3-B(i)(iv)— (i) Recurring (ii) Non-recurring ...		

SUPPLEMENT TO THE CALCUTTA GAZETTE, JULY 13, 1921. 1453

Appendix B—continued.

STATEMENT II.

Detailed statement showing receipts and expenditure required under section 3, Part II of the Bengal Primary Education Act, IV of 1919, for the Municipality of District

Serial No.	Items.	Amount.	Remarks.
1	Existing expenditure on primary education.	Rs.	
2	Expenditure* required annually to provide necessary school accommodation for— A.—All children aged 6 to 11 likely to attend primary schools voluntarily. B.—All boys aged 6 to 10 ...		* Capital and recurring expenditure should be shown separately.
3	Receipts† already available ...		† Details should be given of different items, e.g., municipal contribution, fees, etc.
4	Income‡ likely to be available to meet— (a) Expenditure referred to in 2-A above. (b) Expenditure referred to in 2-B above.		
5	Government‡ grants considered necessary by the municipality to meet— (a) Expenditure referred to in 2-A. (b) Expenditure referred to in 2-B.		‡ Capital and recurring grants should be distinguished.

APPENDIX C.

No. 296, dated Calcutta, the 23rd December 1920.

From—EVAN E. BISS, ESQ., I.E.S., Special Officer for Primary Education, Bengal.
To—The Chairman of the Municipality, Howrah, etc.
Rangpur.

As you are perhaps aware I have been placed on special duty to make recommendations with a view to the expansion and improvement of primary education in municipalities and district board areas in Bengal. This object is of the greatest interest because of the importance of improving the intelligence, and hence the power of production of the masses of the people. I have now visited a considerable number of places with this end in view, and schemes are being prepared upon lines which have features which are new in the country. Two main guiding principles have been kept in view in working out schemes, (1) that of *co-ordination* and (II) that of *concentration*.

2. It is found that the lower primary school is being widely used as an institution preparatory to middle and high schools. While recognising and approving of this it may be admitted that the primary school was originally intended for children whose education, for economic and other reasons, must be of a very limited character. Up till now there has been overlapping between the curricula of the primary and the higher stages of education, and consequent loss of time in passing from one to the other. The application of the principle of *co-ordination* involves the recognition of both functions of the lower primary school, the classes of which may be made to serve as preparatory on the one hand to middle schools and middle departments of high schools, and on the other to the final or upper primary standard or standards, in which the primary course should be rounded off with teaching and training of a vocational character. The lower primary school, thus becoming the foundation of the whole fabric of a national system of education, must be regarded as of the greatest importance both in respect of its quality and of the number of children that can be educated in it. Diagram I attached to this letter illustrates what is meant by one of many possible typical arrangements of classes